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CLINICAL LECTURE.

A MEDICAL CLINIC.

BY FRANCIS DELAFIELD, M.D.,

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IDIOPATHIC CARDIAC DILATATION.

GENTLEMEN:—The patient before us is forty-eight years old. He has been engaged in a stone-yard where he had heavy lifting to do. He tells us that his health was good until three weeks ago, when he began to have shortness of breath, loss of appetite, with pain about the stomach and some regurgitation of sour fluid. He continued at his work in spite of these feelings for a week, but for two weeks past he has not worked at all. These symptoms, however, have continued.

We find that his urine is normal; the lungs are moderately emphysematous; the heart is very decidedly increased in size, due partly to dilatation, partly to hypertrophy, but much more to dilatation than to hypertrophy. We find that the heart's action is rapid; that the first sound is not nearly as loud and long as it should be, but there are no murmurs.

There can be no question, I think, about the diagnosis. That which should make us hesitate concerns the treatment rather than the diagnosis. I think there is no reasonable doubt that the man presents that curious lesion called idiopathic dilatation of the heart, a condition concerning the etiology of which we are very ignorant, but one which we recognize as existing in more and more cases from year to year. In these patients there is no chronic endocarditis; there is no change in the valves of the heart; but at some time, without discoverable cause, the cavities begin to increase in size. They increase in size pretty rapidly; and with this increase in the size of the cavities of the heart, there is uniformly a rapid and feeble action of the organ, more or less shortness of breath and more or less loss of strength, the urgency of the symptoms varying very much in different patients.

In some of the cases we will get a definite history, such as this man gives: a history of an occupation involving severe muscular exertion; with this there is apt to be developed emphysema of the lungs. In some patients, in addition to the history of unusual muscular exercise, there is also a history of intemperance, especially of n-temperance as regards beer. This man says that two years ago he was in the habit of drinking a few pints of beer a

day. In a considerable number of cases we get a combination of a laborious occupation and the habitual drinking of large quantities of beer, with the development of emphysema and this form of dilatation of the heart. There are other cases in which this condition of the heart comes on suddenly after a single severe exertion. Thus there is a variety as to the exact history of these patients, but this man furnishes a very good illustration of one particular type.

As a rule the first thing these patients require is rest. They should be kept as quiet as possible; indeed, a great many of them require to go to bed and be kept there, not allowed to move about at all. On the other hand you will meet from time to time patients whose general condition, like this man's, is such as rather to make you hesitate about putting them to bed. We have here a man of large frame, well developed muscles, who has been accustomed to out-of-door life and a good deal of exercise. It is no trifling thing for such a man to be shut up in a house or confined to bed. You might in that way injure his general health more than you would do good to his cardiac disease. So, in some of these cases it is not at all an easy thing to determine which is the better course; and the difficulty is enhanced by the social conditions of a large number of the patients. They are laboring people, whom it is difficult to place under the best of circumstances. If you tell this man not to work, it means that he will sit in his room, sit about the stove, probably smoke all day, hang about, doing nothing and the demoralization of this sort of loafing is very great indeed. Still more, the temptation to drink is greatly enhanced. "When a man has nothing to do he naturally drinks," and that, of course, is not good for these patients. So I doubt whether it would be wise to shut this man up indoors. I should be disposed to advise him to go about out of doors, not trying to work, but not sitting in the house all day. I should put him on regulated diet. He should eat solid food, but he should avoid indigestible articles. As for medicine, I do not know that we can do better than to order him the tincture of strophanthus. That is a cardiac stimulant which I think would be most likely to regulate the action of the heart in his case.

AN OBSCURE CASE.

This man works upon gas-fixtures. His age is thirty-eight. The history obtained in the reception-room was that his illness commenced twelve days ago. The man now tells us, it began last Monday, but you can see that he evidently is sick, and it is possible he does not remember. Three days ago he was seen, and his temperature then was 100° F. Yesterday it was 98.6°, and to-day it is 98°. The man is perspiring at the present moment pretty freely, although the room is only comfortably warm. His tongue is coated. It is also stated in the history that a general eruption made its appearance on Tuesday. There is now an eruption on the chest, but it does not belong to any of the regular eruptions with which I am acquainted. The perspiration is manifest not only on the forehead, but it extends over the body and the eruption is also present on the chest and abdomen. It consists of little round spots which are not characteristic. There is nothing abnormal in the throat. It is evident enough that the man is sick; he is in this curious apathetic state, without elevation of the temperature, but with profuse perspiration. The expression of the face is not unlike that of a patient with typhoid fever, yet there is nothing else about the case to make one think of that disease. I am unable at present to explain what is the matter with the man.

CHRONIC CATARRHAL COLITIS.

This man is 38 years old. He tells us he has had diarrhœa about three months. The movements were small; they contained mucus, but did not contain blood. This diarrhœa has continued, the passages being most of the time mucous, at other times more fæcal in character. The man has lost flesh and strength, but he has managed to keep at his work until quite recently. He says these passages are sometimes preceded by pain in the bowels. He has had no sickness at the stomach. His appetite leads him to take food, but as soon as he has taken a few

mouthfuls, he finds his appetite leaves him.

I think chronic catarrhal colitis is unquestionably the cause of the man's diarrhœa. I should suppose that, although the inflammation has at no time been very severe, it now has a pretty firm grip on the intestine. I doubt whether he would be benefitted by medicine alone, if he continued going about and tried to work. The beginning of the treatment should be to put the man to bed and give restricted diet. That is all I should do at first. I should not now give him any medicine at all. I should simply have him go to bed and give him an exclusively milk diet. What the further treatment of the case would be would depend upon how well he got along on this. There is quite a difference in patients as to the particular medicine which is best to administer, although they may be suffering with the same disease. Some do very well indeed with a mixture of castor oil and tincture of opium, taking twenty minims of castor oil and two minims of deodorized tincture of opium, made up into an emulsion with mucilage, three or four times a day; castor oil in this case not being given as a laxative at all, but as a remedy directed to the inflamed condition of the colon. I do not know that there is any theoretical explanation of its good effect, but, as a matter of practice, we find that it is of very great benefit to a good many of these patients. Then other patients do not do very well with this remedy; they may do very much better with belladonna, ipecac and bismuth taken together: a quarter of a grain of the extract of belladonna, half a grain of ipecac and five grains of the subnitrate of bismuth, given together three or four times a day. Then other patients will do better with one or other of the mineral acids. So, in the different cases sometimes one, sometimes another, remedy will render the best service. But in all cases I think the rule holds good that, if the disease has lasted a sufficient length of time to reduce the weight and strength of the patient, there is very little use in beginning with any of these remedies if the patient is allowed to go about. On the other hand, they often do very well without any medicine at all, if they are put to bed and are restricted to a milk diet. After they have begun to improve, you may use one or other of these remedies.

LEUCOCYTHÆMIA.

This man, aged thirty-two, tells us that his health has been failing several months. He is not very clear as to the exact time when his failure of health began, which I suppose means that it came on very gradually. The first thing which seems to have attracted his attention was the loss of strength. He also had a little dry cough, which does not seem to have amounted to very much. The failure of strength has been apparently a prominent feature of his case up to the present. Latterly there have been swelling of the abdomen and moderate dropsy of the feet and he now tells us that he bleeds at the nose a good deal.

When we come to examine the man, he does not look very sick; his color is not very bad. The only thing which you would notice about him is the prominence of the abdomen. We find that there is a systolic cardiac murmur in the second left intercostal space. The lungs give a few subcrepitant rales behind.

The abdomen is distinctly enlarged, and the enlargement is due to a great increase in the size of the spleen and a moderate enlargement of the liver. With such a history as this, and with such a physical examination, you would at once think of two diseases as those between which the differential diagnosis must be made. To tell with which one of those two diseases the man is suffering it will simply be necessary to examine the blood. The diagnosis rests between leukæmia and pseudo-leukæmia. A little of the man's blood has been examined during our remarks, and that examination settles the question at once in favor of leukæmia or leucocythæmia. There is one white blood cell to ten red ones, which is a very marked increase in the number of the white. While the case is very evidently one of leukæmia, yet the man's lips are not anæmic; they do not look white; the face is not pale; you have seen many ill-nourished patients whose faces were much whiter than his. In

fact this man's lips and skin are of good color. That is a po nt for which you should be on your guard in cases of leukæmia. A great many of the patients become very pale indeed, but others show no marked pallor even in an advanced stage of the disease.

ORIGINAL COMMUNICATIONS.

THE PHARMACOLOGY OF THE NITRITES AND OF NITRO-GLYCERINE.

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Read before the Section in Therapeutics of the Ninth International Medical Congress, by Ralph Stockman, M. D., of Edinburgh.

THE pharmacology of the nitrites and of nitro-glycerine is most conveniently discussed by considering in the first place the pharmacology of the nitrites, and then the pharmacology of nitro-glycerine.

The Pharmacology of the Nitrites.—The essential basi- of pharmacological action in this group of medicinal agents is nitrous acid, an acid which is remarkably unstable at ordinary temperatures, especially in the presence of water. By making a watery solution of about one in three thousand, there is a not very rapid deterioration, and such a freshly prepared solution may be used for a couple of days or so. The solution, however, has no advantage over a simple metallic nitrite solution as of nitrite of sodium; and the experiments carried out with it, on myself, on rabbits and frogs, showed its action to be identical with that of a solution of nitrite of sodium, in so far as the action of an acid can be considered identical with one of its salts. Our knowledge of the actions of the nitrite group has chiefly been derived from the effects produced by nitrite of amyl. Since here the base (amyl) has a decided action of its own, it is advisable, in order to ascertain the action of nitrous acid in combination to form a salt, to select such a nitrite as nitrite of sodium, the base sodium possessing in its combinations no well-marked pharmacological activity.

The Pharmacology of Nitrite of Sodium.—The literature pertaining to the action of this nitrite is not great. Gamgee, Lauder Brunton, Hay, Leech and others have all recorded their experience of a like similarity of action between this salt and amyl nitrite. Barth (*Toxikolog. Untersuch. Uber Chilisaltpeter*, Bonn, 1879) pointed out its highly poisonous qualities. Binz (*Archiv f. Exper. Path. und Pharmak.*, xiii, 133) gave some experiments as to its general action on dogs, rabbits and frogs, showing that it produced death from a general paralysis, especially of the muscular system, no convulsion preceding the fatal issue. Reichert (*Americ. Jour. of the Med. Sciences*, vol. 80, p. 158) states that he found its action, so far as he investigated it, identical with that of nitrite of potassium, with which nitrite he made a long series of experiments which will afterward be referred to. The nitrite of sodium used in the experiments I am about to detail was re-crystallized by myself from commercial specimens of the salt, and contained nitrous acid equal to from 99.2 to 99.4 per cent. of actual nitrite.

General Action.

On Frogs.—Almost all the experiments were made on winter and summer specimens of the Rana temporaria. Those made on the Rana esculenta were merely check experiments and showed no difference. The general action on frogs is well seen in animals to which minimum lethal doses of nitrite have been administered. For frogs of 25–30 grams, .15 grain (.00972 gram) is a fatal dose subcutaneously injected. Such a frog, with such a dose, in about two minutes after injection, without any preliminary stage of excitement, leaps less readily, and its reflex movements are less vigorous. In ten minutes after injection, it jumps feebly and unwillingly, its cutaneous vessels are dilated, their contents are darkened and respiration is slower. After fifteen minutes, the animal sits with its thorax only slightly raised from the table, its respirations are decidedly slowed, the pupils are as large as before the experiment commenced, the lower eye-lids are slightly closed, on pinching the legs a feeble reflex movement is produced, and the animal crawls away with a kind of walking movement. It cannot jump

and cannot turn off its back. In one hour, having gradually become feebler without any twitchings or convulsive movements, respiration has ceased. The exposed ventricle of the heart is beating slowly, generally about 18 per minute; the auricles usually about twice as fast. The blood is markedly chocolate colored. The strongest stimulation of the exposed sciatics, by a Du Bois-Reymond induction coil with one Daniell's cell, produces only feeble movements of the toes. All skeletal muscles inexcitable, except those on inferior aspect of the thighs and legs, which feebly respond to strongest current. Cord on strongest stimulation produces no movement. Ventricle beats 1½ hours more, auricles for three hours, the heart stopping in full diastole and being quite inexcitable. Tissues and blood give nitrite reaction, and blood shows the spectroscopic (on dialysis) appearances of methæmoglobin. Post-mortem rigidity comes on early, the pupils in it are contracted to pin points, and the subcutaneous tissues become somewhat œdematous. Similar doses to larger frogs produce severe symptoms in about 20–30 minutes, the symptoms being similar to the above, but not proceeding to death. The frog gradually revives, and in two or three hours is almost well. Smaller doses produce slighter but similar effects. With larger doses, the various stages occur more rapidly, but without any difference in phenomena. A frog weighing 22 grams received subcutaneously three grains of the nitrite. The animal rapidly became profoundly affected, as described with the other frogs; in five minutes respiration ceased; in 15, the ventricle, and in 18 the auricle stopped beating. The nitrite was ascertained to be readily absorbed from the stomach or the skin of the frog. Strong solutions painted over the legs rapidly killed.

In Rabbits of about three pounds in weight, three grains were found to be a fatal dose; larger rabbits recovered from this quantity. The phenomena are closely allied to those in the frog. A white rabbit weighing four lbs. four ozs. received subcutaneously four grains of nitrite of sodium. Animal almost immediately became very prostrate, lying down on its belly with its limbs extended, respiration rapid and shallow, blood vessels dilated, and blood of a chocolate color. Symptoms of muscular paralysis rapidly progressed, and in half an hour the animal very feeble and moribund. It now cried once or twice, respiration which had become slow ceased, the rabbit made slight movements of a dyspnœic character with its fore-paws, and died. Immediate post-mortem—venous system engorged, blood deeply chocolate colored, right ventricle in full diastole, left in moderate systole. Auricles, occasionally, feebly beating. Sciatics and muscles inexcitable. All viscera congested. Intestines contracted somewhat less strongly to strong current than in normal rabbit. Dialysed blood gave nitrite reactions, urine contained a trace of nitrite, but no sugar and no albumen. In rabbits more slowly poisoned, gastric ecchymoses were present, and there was a tendency to looseness of the bowels, but no diarrhœa was ever observed. Larger doses than the above produced death very rapidly; from smaller doses recovery after the development of the severe symptoms was comparatively rapid.

In Dogs the phenomena were much as in rabbits, except that vomiting usually occurred shortly after exhibition of the poison, even subcutaneously. Large dogs of about fifty pounds required about twenty grains, this dose being fatal in a little more than one hour. Post-mortem rigidity, both in dogs and rabbits, was early in its appearance. In dogs nitrite reactions were very usually obtained early, in the urine, in rabbits not always and only when present in very minute traces.

In Man.—I am unaware of any fatal cases. In myself, after taking on an empty stomach eight grains of nitrite of sodium, in a few minutes I experienced a great tendency to faintness, with considerable acceleration of pulse and great lowering of arterial tension. No sickness occurred, but considerable irritation of oxides of nitrogen. No visible flushing of any part of the body was detectable.

ACTION ON THE INDIVIDUAL SYSTEMS.

Action on the blood and circulatory system. The account given of the

general action indicates an important action on the blood and circulatory system. Nitrite of sodium very readily produces methæmoglobin, and in dogs, to which a dose of about four grains of nitrite of sodium has been given, methæmoglobin is found for 30 to 36 hours. The red blood corpuscles are unaltered; the white are readily paralyzed by a one per cent. solution in four or five minutes, by a one per mille in 15 to 20 minutes. The excised heart of the frog is killed by being placed in normal saline containing nitrite of sodium, in 8 to 9 minutes if a one per cent. solution be used, in about three hours of a one per mille. No preliminary stage of increased rapidity of beat occurs, the heart gradually beating more and more slowly and finally stopping in full diastole. Directly applied to the heart *in situ*, death was caused by strong solutions, as 20 per cent., in a few minutes; by weak as one per cent., in an hour or so. Subcutaneously injected the same phenomena occurred, no preliminary increase in rate being present. To ascertain the effect on the heart when the vascular dilatation is not present as a disturbing influence, Williams' well known heart apparatus was employed; with 1 in 1000 death of the heart in diastole occurred in 10 or 11 minutes without any preliminary rise; with 1 in 10,000 a slight rise for four or five minutes was observed, followed by a slow fall to death, which occurred in 40 to 60 minutes; with 1 in 20,000 the rise lasted 10 to 15 minutes, and death did not occur for some hours. The slight rise in blood pressure seems due to a slight quickening of the heart's action, rather than to an increase in the strength of the individual beat. From experiments, with many variations of dose, it was ascertained that no stimulating effect on the vagus termination in the heart, and no paralyzing effect either, was induced. Both arteries, veins and capillaries were widened by the drug as ascertained by a micrometer. The solution of nitrite in normal saline was run through the vessels of a pithed frog, the pressure of the inflowing fluid being maintained at a constant level by means of reservoirs filled with Mariotte's flasks. Dilatation occurred with all strengths, from 1 in 10,000 to 1 in 200,000. In mammals great vascular dilatation and great acceleration of the heart-beat occurs. The ophthalmoscopic appearances are those of slight arterial and venous dilatation with small doses. With large doses this dilatation was rapidly followed by diminution in size. Blood pressure experiments on rabbits showed a steady fall; with no dose was there any preliminary rise in blood pressure ever observed. The heart-beat was markedly accelerated. The vagus terminations in the heart are unaffected when the animal is fully under the nitrite; section of the vagi is still followed by some rise in blood pressure, although the rise is very much less than in the normal animal. Section of the depressor nerves was followed by a fall in blood pressure, probably due to loss of sensory impulses passing from the heart to the accelerating centres in the medulla. When the free carotid was clamped with the blood pressure very low, the rise was only small. The acceleration in heart-beats seems, therefore, to be due to depression of the medullary inhibitory centre, secondary to the fall in blood pressure, which is almost entirely due to vascular dilatation, the heart muscle being only affected in advanced poisoning.

On Respiration the effects are to cause increased rapidity, followed by slowing and finally by stoppages before the heart ceases. The nitrite by producing methæmoglobin and by lowering the blood-pressure causes the increase. The paralysis of respiration is due to the effect of the nitrite on the muscular system chiefly, but also in part to the effect on the medullary centre.

The Temperature falls; a slight rise occurs at the beginning, with the thermometer in the rectum, due to vascular dilatation.

Striped Muscle is rapidly paralysed; non-striped more slowly. In the rabbit non-striped, as of the intestine, is only paralysed by a 1 per 1000 solution in 4 hours; by a 1 per 100 in about half an hour.

Motor and Sensory nerves are almost, if not quite, unaffected even with lethal doses as to their peripheral terminations. Their trunks are also probably unaffected unless the nitrite be directly

applied. The *brain* and *cord* are both paralyzed without any previous excitation, unless a saturated or very strong solution be directly applied. Certainly in the uninjured animal no such stimulation occurs.

On the urine, small doses slightly increase the flow; large always diminish it, even if the arterial tension be previously raised by means of digitalis. The urea and uric acid are almost unaffected. Sugar appears in the urine of rabbits, after some hours, if the animal be kept very decidedly under the influence of the drug, but rapidly disappears if the administration of the drug be stopped. The nitrite is largely destroyed in the system, being partly, however, excreted as nitrate, partly probably as urea. A portion of it is excreted as nitrite.

THE PHARMACOLOGY OF THE OTHER NITRITES IS BRIEFLY DISMISSED.

Nitrite of potassium is stated by Reichert (*op. cit.*) to produce restlessness and excitement in frogs, followed by depression and incoördination of voluntary movements, occasionally clonic convulsions or a tetanoid condition being present. Motor and sensory nerves are mentioned as being depressed, and the blood pressure is stated as being primarily increased and then diminished." According to this observation, nitrite of sodium would markedly differ from nitrite of potassium in action, and I made, therefore, a prolonged series of observations with the potassium salt. It was found to be practically absolutely identical in action.

Nitrite of ethyl was used, mixed with an equal volume of absolute alcohol. This drug acted much as the sodium salt, but much more rapidly, death, after subcutaneous injection, occurring in a few minutes, and by inhalation in one or two. The blood is rendered markedly chocolate-colored from methæmoglobin production. The muscles and sciatics are little affected. Slight dyspnœic convulsions occur, and death is apparently due largely to medullary paralysis.

Nitrite of amyl has been so largely written upon that it requires but little to be said of it. Death with it is partly due to the muscle paralysis, especially if the drug be subcutaneously exhibited, as then very slow absorption takes place, death not usually occurring for many hours. The fatal issue is principally, however, produced by similar causes to those acting with nitrite of ethyl.

The Pharmacology of Nitroglycerine. — This body, a tri-nitrite of glyceryl, as shown by Hay, breaks up in the system with the production of nitrates; hence, therapeutically, it has a nitrite-like action when given to man and mammals by the stomach, subcutaneously, or by intra-peritoneal injection. Occasionally, with very large doses to rabbits, as five or six grams by the stomach, tetanic convulsions occur. Watery solutions, usually of the strength of one per mille, when subcutaneously injected into frogs, produced a series of phenomena quite different from nitrite of sodium. A frog, weighing 20 grams, received subcutaneously 30 mimins of a 1 per 1000 watery solution of nitroglycerine. In one minute it began to walk slowly about and refused to jump unless strongly irritated. In two minutes it was unwilling to jump at all, and the movements were stiff, with a tendency for the animal to rotate on its haunches. Reflex movements much diminished in three minutes from time of injection. Four minutes after injection it gave a sharp cry, and after a few seconds of very irregular movements pronounced tetanus occurred. The tetanus soon passed off, but was readily induced by stimulating skin until following morning. Animal feeble following day and did not fully recover until third day after injection. If smaller doses be given clonic, but not tetanic, movements occur. If larger, as 100 mimins of the 1 per 1000 solution, the animal dies from the exhaustion produced by the tetanus. After death the post-mortem appearances are like those of nitrite poisoning to some extent, and the blood on dialysis gives nitrite reactions. Portions of the brain were successively removed and clonic movements were localized in the medulla; the tonic in the spinal cord. The effects on the other systems of the body were similar to those of nitrite of sodium, being, indeed, due to the production of this

salt. Administered to mammalia by the stomach, death occurred due to nitrite poisoning; but if intravenously injected, tetanus, preceded by clonic movements, invariably was very readily induced by the injection of a few c. c. of a one per mille watery solution into the jugular vein of rabbits. The cause of the non-appearance of tetanus, when given by the stomach, is the slowness of absorption of sufficient quantity to induce convulsions, as the nitroglycerine is not very soluble in water (1 in 760), and, further, the absorbed ether is rapidly partially decomposed into nitrite. The excretion of nitroglycerine is by the urine from which, after large medicinal doses, it can easily be extracted by means of ether.

It is obvious therefore that in nitroglycerine we have a twofold action, that of nitroglycerine and that of the resulting nitrite. Nitroglycerine *sui generis* acts as a convulsive agent; the nitrite, which results from its decomposition, as a paralyser.

(Fuller details of this paper appear in the Journal of Anatomy and Physiology for January 7, 1888.)

PUERPERAL SAPRÆMIA.*

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DURING the puerperal period we find various fevers which may be classified as follows:

1st. Septicæmia, or septic infection, in which organisms, multiplying in the tissues, produce local inflammations (parametritis, perimetritis and peritonitis), or, multiplying in the blood, produce septicæmia proper. Lomer, in the *American Journal of Obstetrics* for July, 1884, says: "These organisms are *similar* to the organisms found in the blood of patients suffering from diphtheria, scarlet fever, and erysipelas, but not necessarily identical with them. They have the form of round bodies, united in chains or clusters."

2d. Sapræmia, or septic intoxication, in which there is an absorption of a chemical poison produced by the decomposition of placenta, membranes, blood clots, or lochia.

3d. Zymotic diseases, some of which are usually more fatal to puerperal women than to other patients contracting the disease from the same source. Deserving of especial notice are diphtheria, scarlet fever and erysipelas.

4th. The slight traumatic fever accompanying the healing of a wound running an aseptic course.

5th. The rise of temperature which is sometimes observed just before the flow of milk commences.

The following cases, of which I shall give the history, belong to the second class, sapræmia:

Case I.—Annie C., aged 19, white, primipara, was confined Jan. 9, 1886. The duration of the first stage of labor was fifteen hours; the second, two hours; the third, twenty minutes. During the first, second and third days the temperature did not rise above 99°; the pulse ranged from 68 to 88.

The fourth day, at 9 A.M., the temperature was 99°, the pulse 80. Late in the afternoon she had a severe chill. At 7 P.M. the temperature was 104.5°, the pulse 140, and weak. The skin was cool. The uterus could not be outlined, and was supposed to be relaxed, as it actually was, as shown by subsequent examination. There was no pain over any portion of the abdomen or pelvis. Antipyrine, ergot and vaginal injections were used.

The fifth day, at 9 A.M., the temperature was 102.5°, the pulse 124. Same treatment was continued. Throughout the day the patient was somnolent. She could easily be roused, but dropped to sleep immediately upon being left undisturbed. At 7 P.M., temperature was 104.5°, pulse 140. As shown by the chart, antipyrine in fifteen-grain doses failed to reduce the temperature. Late in the evening the uterus was washed out with a solution of mercuric chloride, after which fifteen grains of antipyrine promptly reduced the temperature to 100°.

The sixth day, at 9 A.M., the temperature was 101.5°, the pulse 120. Though the antipyrine and vaginal injections were continued, as the day advanced the temperature continued to rise.

* Read before the Clinical Society of Baltimore, Dec. 2, 1887.

To furnish complete drainage, I took about a yard of common white rubber drainage-tube, and cut a number of openings in the three inches nearest one end. Then inserting the plain end into a large bottle filled with a solution of corrosive sublimate, 1–4000, a stream of the solution was started through the tube, and while the stream was running, the cut end of the tube was introduced into the uterus. The tube continuing to act as a siphon, the uterus was washed out. The bottle was then nearly refilled with the solution of corrosive sublimate and suspended to the side of the bed. In this position the tube still acted as a siphon, but in the reverse direction, and effectually drained the uterus. Twice daily, while the tube remained in position, the uterus was siphoned out through it.

The seventh day the highest temperature was 102.5°. The eighth and ninth days the highest temperature was 101.5°.

These four days, with the drainage-tube in, the temperature was easily controlled by antipyrine.

The tenth day, at 9 A.M., the temperature was 98°, the pulse 96. The drainage-tube was removed, and no antipyrine was given after 6 A.M. At 7 P.M., the temperature was 103°, the pulse 124.

The eleventh day the uterus was washed out, the drainage-tube replaced, and no antipyrine given after 6 A.M. At 9 A.M., the temperature was 99°; at 7 P.M., it was 101°: showing a rise of two degrees during the day with the drainage-tube in, as compared with a rise of five degrees the previous day, when the tube was out.

Twelfth day, highest temperature 101°; thirteenth day, highest temperature 99.5°. The patient was bright and cheerful. The milk which had been entirely suppressed began to return to the breasts. The tube came out accidentally, but as there was such marked improvement in the patient's condition, its further usefulness was doubtful, and it was allowed to remain out.

The fourteenth day, at 9 A.M., the temperature was 99.5°; at 7 P.M., it was 103°, pulse 128.

The fifteenth and sixteenth days the tube was kept in and no antipyrine given. The highest temperature was 102.5°.

The seventeenth day antipyrine was given, and the temperature did not rise above 101°.

The eighteenth day, at 9 A.M., temperature 101°; at 7 P.M., 102°. The tube accidentally came out, but as the temperature during this day and the nineteenth and twentieth was easily reduced by antipyrine, it was thought that surely from this time forward the drainage-tube could be dispensed with.

The twentieth day, at 7 P.M., the temperature was 102.5°; at 10 P.M., it was 105°, pulse 124.

The twenty-first day, at 9 A.M., temperature 105°, pulse 132. Antipyrine in twenty grain doses, repeated every three hours, failed to reduce the temperature. Again the tube was introduced, and the same effect noted as before. The temperature was at once easily controlled by fifteen-grain doses of antipyrine.

The twenty-second and twenty-third days, the highest temperature was 102.5°.

The twenty-fourth, twenty-fifth and twenty-sixth days, no antipyrine was given. The highest temperature was 101°. The tube was removed permanently.

The uterus was washed out twice daily through a soft rubber catheter, until the thirty-third day. The last antipyrine was given the thirtieth day.

The thirty-third and thirty-fourth days the uterus was washed out only once each day, and then the intra-uterine injections were discontinued. The temperature remained slightly above normal until the forty-first day.

(TO BE CONTINUED.)

WHAT TIPPLING DOES.—From a somewhat extended experience with alcoholism, we think it *almost* an impossibility on the Atlantic Coast for any young man or woman of seventeen years of age to commence indulging in wine and beer daily and not feel a growing desire for some more powerful stimulant, and they will soon resort either to the habitual use of distilled liquors, such as brandy or whiskey, or fall victims to the disease of dipsomania.—MANN, *in N. E. Med. Monthly.*

DENTAL IRRITATION AS A FACTOR IN THE CAUSATION OF EPILEPSY.*

BY ALBERT P. BRUBAKER, M.D.,

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IN all the wide divergence of view as regards the nature of epilepsy, there is a general consensus of opinion that its essential feature is of the character of an explosive discharge from the higher nerve-centres, the nerve-force thus liberated bearing down upon the centrifugal distributions of the motor nerve-tracks with such an excess of energy that inco-ordination of movement reaches the stage of convulsion and spasm. Owing to the periodicity of the convulsive seizures, it has been assumed that, in individuals predisposed to epileptic attacks, the higher nerve-centres are in a state of high tension, of unstable equilibrium; and that it only requires a stimulus of a definite quantity or intensity to excite the explosive discharge.

Writers have generally laid it down as an established fact that the majority of the cases of epilepsy are idiopathic, without definite causation, and due solely to heredity; but it can scarcely be doubted that these cases are properly so classed only as regards the predisposition, and that in them all a morbid action, even though slight in amount, is necessary to call forth the nervous discharge. The morbid process may be centrally located and beyond the reach of investigation, or it may be peripherically located and exciting the convulsion in a purely reflex manner. It is fully conceded by all that injuries to nerves, diseases of the ear, intestinal worms, phimosis, uterine troubles, etc., are all not uncommon peripheral causes resulting in epileptic attacks.

The question has been raised, however, as to whether a convulsive attack due to a peripheral irritation can be regarded as a true epilepsy, or whether it is not to be regarded rather as of an hysterical character. Without attempting to pass judgment upon this subject, it will suffice to quote the recent views of a very competent authority upon nervous diseases, Prof. H. C. Wood. In commenting upon the convulsion due to a peripheral irritation, he says: "It is almost invariably epileptiform in its general symptoms, and may conform exactly to the typical epileptic attack;" and, while admitting that many of these reflex convulsions partake largely of the hysterical character, he further says: "There are, on the other hand, convulsions which conform to the epileptic type, and which are the result of an organic peripheral irritation."*

A remarkable feature of the epileptic convulsion is its periodicity. Now it is proved beyond question that the higher nerve-centres of the brain act not only as inciting, but also as inhibitory centres to those of a lower level. They are at once reservoirs of nerve-force and regulators of its dispensation. If, therefore, a morbid process at the periphery continuously attack, through nervous intermediation, these higher nerve-centres, it follows that these in time must have their resisting power overcome at intervals, and at successively higher levels, until a final one is reached, when control is no longer possible. The unremitting irritation having at last overcome the resisting power of the highest nerve centres, their energy is suddenly liberated, and the organism is flooded with waves of uncontrollable centrifugal energy, until exhaustion brings about a temporary equilibrium.

The object of this paper is to direct the attention of physicians to a cause of epilepsy which has not hitherto been estimated at its full value, inasmuch as in none of the standard works upon neurology is the subject even alluded to: viz., pathological state of the dental structures. That dental inflammations and disorders are more often provocative of epileptic seizures than is commonly supposed appears quite certain from the following cases, and also from the character of the cause and its effect. Many reasons might be given why dental disorders are peculiarly adapted to call forth this periodical discharge, and why these disorders are habitually overlooked by the physician; but they need not be

* Read before the Philadelphia Neurological Society, December 19, 1887.

* "Nervous Diseases and their Diagnosis."

detailed here. As exemplifying these phenomena, some interesting and instructive cases are adduced.

The following case occurred in the clinical service of Dr. Wharton Sinkler at the Orthopædic Hospital and Infirmary for Nervous Diseases, to whose kindness I am indebted for the privilege of recording it:

Case I.—Mary L., aged 9, was brought to the hospital in October, 1886, with a history of epilepsy dating from May of the same year. The convulsive attacks first made their appearance on the afternoon of the same day that the child had had three teeth extracted on account of repeated attacks of toothache. One decayed tooth, however, was left remaining in the lower jaw. Previous to coming to the hospital the epileptic attacks occurred two and three times a week. From all that could be learned from the mother, the symptoms were those of a typical epilepsy. There was no neurotic history in the family. She was placed upon from three to five drops of the fluid extract of cannabis Indica for two weeks, during which period she had twelve attacks. The bromide of sodium was then given for two weeks, during which she had sixteen attacks. From November 1 to March 1, 1887, she continued taking the bromides alone, in combination, and, finally, in conjunction with the infusion of digitalis. During the four months of steady treatment she had forty seizures. About the 1st of March the mother made the remark that the child was always extremely restless at night; that she would lie awake for hours complaining of toothache; and even when asleep she would continually grind her lower teeth against the upper teeth. Examination of the mouth revealed a carious and inflamed condition of a molar tooth in the lower jaw on the left side.

From the history of the case, and the possibility that the irritation arising from the diseased tooth might be the exciting cause of the attack, it was concluded to have the tooth removed. This was done under the influence of nitrous oxide gas. The night following the child rested much better, and from that time forward her sleep became natural, her appetite improved, and her general health became decidedly better. From the last week in February until the present time (December 19, 1887) she has not had a single symptom of an epileptic attack.

That a dental irritation should be capable of exciting an epileptic condition does not appear at all strange when it is fully comprehended how numerous are the recorded cases of ocular, aural, visceral, muscular, and nervous disorders which have been caused by the irritation arising from the pathological conditions of the teeth and associated structures.

The interest aroused by the result of the preceding case led to an examination of medical literature for reports of similar cases. I find that no less than sixteen cases, entirely and immediately cured by the removal of an irritating tooth, have been recorded by different observers, and which are here arranged in chronological order. It is not supposed that this collection embraces all the recorded cases; but it is hoped that it will elicit references to many others, and, what is more important, the reporting of many new cases.

The injurious effects of diseased teeth, and the irritation arising from them, in the production of many general diseases, did not escape the acute mind of Dr. Rush. In a paper published in his collected works,* he records the following:

Case II.—"Some time in the year 1801, I was consulted by the father of a young gentleman in Baltimore who had been afflicted with epilepsy. I inquired into the state of his teeth, and was informed that several of them in his upper jaw were much decayed. I directed them to be extracted, and advised him afterwards to lose a few ounces of blood at any time when he felt the premonitory symptoms of a recurrence of his fits. He followed my advice, in consequence of which I had lately the pleasure of hearing from his brother that he was perfectly cured."

Dr. Ashburner published,† in 1834, a number of remarkable cases of hysteria, spasms, convulsions, etc., due to

* Inquiries and Observations, vol. i, p. 199.

† On Dentition and some Coincident Disorders, p. 98.

diseased conditions of the teeth. Among others was the following case of epilepsy:

Case III.—A young lady of highly nervous temperament was attacked with epilepsy in the eighth month of her first pregnancy. She had two attacks before her labor, which was a very favorable one. Seven months afterwards the fits reappeared, and occurred two and three times a week. Various methods of treatment were resorted to without success. For a while the intervals between the attacks were somewhat longer, and for a while they appeared twice daily. An examination of the mouth revealed seven carious teeth, which were at once removed. Three wisdom teeth were prevented from erupting on account of a cartilaginous condition of the gums. These obstacles were removed. The epileptic fits at once ceased, and after several years they had not returned.

Case IV.—Albrecht relates* the case of a boy, aged 12 years, who for a period of six months suffered daily with general convulsive attacks. Just preceding the attack there was severe pain in the temporal region. No cause could be assigned for the seizures. Treatment was without avail. Examination of the mouth revealed an overcrowded condition of the teeth, which were in addition unusually large. After removal of some of the teeth the convulsions subsided, and in a short time entirely disappeared.

Case V.—Dr. Tomes publishes† the following: "A lad, a farm-laborer from Windsor, was admitted into the hospital for epilepsy. The usual remedies were tried for six weeks without effect. His mouth was then examined, and the molar teeth of the lower jaw were found to be much decayed, and of some of these only the fangs remained. He did not complain of pain in the diseased teeth or in the jaw. The decayed teeth were, however, removed, and the fangs of each were found to be enlarged and bulbous from exostosis. During the eighteen months that succeeded the removal of the diseased teeth he had not suffered from a single fit, though for many weeks previous to the operation he had two or three per day."

Case VI.—Dr. Baly records* the history of a case of epilepsy from dental irritation occurring in a man aged 45. The patient was an employee in the Millbank Penitentiary; was of good physique; in good health, and had never suffered from vertigo, headache, or any form of nervous trouble. In the latter part of October, 1850, he began to suffer with toothache. On November 4th the tooth was examined by the medical officer, but on account of its carious condition and deficient light it was not extracted. Nitric acid, however, was applied, which gave the patient relief. On the 6th, the muscles of the right side of the face began to twitch. The muscular spasms lasted four or five minutes, and occurred three or four times a day. "At these times, when the twitchings had reached a certain degree of intensity, the jaw became locked, and he lost the power of speech; but he had no pain in the head, giddiness, or sense of stupor. The paroxysm of spasm in the muscles of the right side of the face and jaws recurred the next day, and on the following day, the fourth after the examination by Mr. Chatfield (the medical officer), the twitchings became more violent, and his jaw locked. He had the sensation of all his teeth falling out, and then lost consciousness. A strong convulsive fit ensued, which lasted half an hour; the same night he had a second fit." These attacks were described as presenting all the features of an epilepsy. A third attack occurred before morning. The next day the tooth was extracted, together with a small piece of bone attached to the root.

For one month the patient was perfectly well, but on the 7th of December, in the middle of the day, he again experienced the spasmodic twitchings, and at the same time became conscious of the existence of something protruding from his jaw; with his fingers he removed a piece of dead bone. In the evening of the same day the spasmodic contractions of the face occurred several times. On the night of December 8, he awoke with a spasm in the cheek, and upon getting out of bed fell upon

* Casper's *Wochenschrift*, 1837, p. 125.
† System of Dental Surgery.

* *London Med. Gazette*, xlviii, pp. 534–540.

the floor unconscious; a general convulsive fit followed, during which there was foaming from the nose and mouth. At 6 A.M., a second fit followed more violent than the first, and lasted five minutes. In the intervals of these attacks there was considerable uneasiness and confusion of mind. The next night he suffered a return of the fit. Examination of the mouth revealed a swollen and tumid condition of the gum, but there was no discernable source of irritation. The patient was placed on calomel to prevent further mischief to the deeper-lying structures around the diseased tooth-socket. He remained well until February 22, when he had, for the space of ten minutes, the same premonitory twitchings in the muscles of the face, but no real fit. A small piece of dead bone was extracted from the gum, after which the old wound healed, and the patient entirely recovered.

In 1857, Dr. Sieveking read* before the Royal Medical and Chirurgical Society a paper entitled "An Analysis of Fifty-two Cases of Epilepsy." In the discussion that ensued Sir Charles Locock said he had noticed the omission of the paper of a very common cause of epilepsey, viz., dentition. He could not agree with Dr. Ashburner that all cases of the disease could be cured by the removal of the teeth; but he had certainly seen the affection cured in more than one instance by removing overcrowded teeth.

Case VII.—Dr. Ramskill publishes† the following: "A boy, 13 years old, has had frequent attacks of epilepsy for the last eighteen months. Latterly, his mother noticed that some days he rubs his left cheek, complaining of faceache, after which the fit follows. On examining the mouth, there is to be seen a molar tooth considerably decayed, with a swollen gum around it and partly grown over into the cavity; it is not very tender to the touch, and the examination does not give rise to toothache. On questioning, I find the sensation which the boy experiences before the fit does not seem to be one of pain, but rather of indefinite uneasiness. He always has a fit the night this comes on. Has never felt it during the day; it is always about seven or eight o'clock. I desired the mother to have the tooth extracted, and ordered a simple saline, with ¼ grain of belladonna, to be taken twice daily. This was in June. The tooth was extracted the next day. I saw this boy once a fortnight from that time for four months, but he had no recurrence of the fits. In this case I believe an unfelt aura commenced about the gum surrounding the tooth, and was not recognized till some degree of inflammation arose, and thus a modification of pain became associated with the aura and directed attention to it."

Case VIII.—Trousseau relates* the case of a patient, a young notary's clerk, under the care of Dr. Foville, who had been subject to monthly attacks of epilepsy for several years. Many remedies had been tried in vain. Dr. Foville suggested the extraction of some carious teeth which ached constantly. The suggestion was acted upon, and from that day the fits disappeared.

Case IX.—Dr. Garrett related the following case before the Suffolk District Medical Society, and was reported by Dr Page:† "A man, aged 40 to 50 years, had suffered with his teeth for years; these had been extracted and artificial ones substituted. He became paralyzed in the muscles of his face and tongue. There was a peculiar drawing of the mouth, from which the aura epileptica came just previous to the fit; the tongue was inclined to fall back in the mouth; he was fearful of swallowing it. In investigating the case Dr. Garrett removed the false teeth, and found the soldering discolored; he went back to his dentist, had a rubber plate made, and had no further attacks of epilepsy; the paralysis gradually subsided."

Cass X.—W. H. Waite reports‡ the case of a young woman, aged 18, who consulted him for treatment for a carious condition of the incisor and canine teeth of the upper and lower jaws. The teeth had been diseased for four years,

Lancet, June, 1857.
†*Med. Times and Gazette*, 1862, vol. ii, p. 216.

**Clinical Medicine*, New Sydenham Soc., vol. i.
†*Boston Med. and Surg. Journal*, November 8, 1860.
‡*British Journal of Dental Science*, 1863.

and were very sensitive. For three years the patient had been subject to epileptic attacks, which were at first quite slight, but had gradually increased in severity. After removal of the diseased teeth and filling of others, the epileptic fits entirely ceased. After some months the fits returned attended with sharp, shooting pains in the alveolus. Examination showed that several other teeth had become decayed. These were removed, and from that time on there was no recurrence of the epilepsy, and the patient increased in health and weight.

Case XI.—Dr. Nathan Field reports* the case of a boy, about 5 years old, who was suddenly seized with an epileptic fit. In two weeks he had a second attack, which passed away after a few minutes. In the course of the next ten days it was estimated that the boy had a thousand convulsions, occurring every few minutes. No cause could be assigned. It was finally observed that before the appearance of the convulsion there was a twitching of the muscles of the left side of the face. Finally, after a severe convulsion, while the child was unconscious, he drew up his upper lip, when it was observed that the canine tooth had, instead of causing absorption of the deciduous tooth, pushed it outward through the alveolus, the gum, and into the lip. The tooth was removed, and in less than an hour the convulsions subsided and never appeared again.

Case XII.—Mr. Canton related† the history of the following case: A strong, healthy boy, aged 19, who had become the subject of epileptic fits, applied to Mr. Canton for treatment. As the cause of the fits could not be ascertained, it occurred to him that they might be due to the eruption of a wisdom tooth. The gum was freely incised, and the crown of the tooth laid bare. From that time the fits never returned.

Case XIII.—Mr. Henry Moon related‡ the following case: "The patient, a girl, aged 21, was brought as an outpatient to Dr. Fagge, at Guy's Hospital, and he, finding that her teeth were in a very bad state, sent her to Mr. Moon. She had suffered from fits since she was fourteen, and lately they had become so frequent as to reduce her almost to the condition of imbecility. On examining her mouth, a third molar was found in process of eruption; this he lanced freely. Some carious teeth were extracted and others were filled. Treatment by the bromides of potassium was ordered at the same time. The result was, that the fits entirely ceased from the day of her first visit to the hospital. The girl recovered her intellect, and although she was kept under observation for several months, she had no return of the fits."

Case XIV.—Dr. Schwartzkopf reported* the following case in the *Deutsche Monatschrift für Zahnheilkunde*, 1886: "A man, aged 27, suffered severe pain in the right upper central incisor, which was carious, and consulted a dentist, who filled it. Soon after this a swelling appeared in the hard palate, where an opening formed. The patient was now easy, but the tooth continued loose and tender when touched. The fistula also remained patent and discharging. Ten days after the tooth was filled the patient had an epileptic attack, and these recurred at gradually shorter intervals until, at the end of eighteen months, they occurred several times a week. During this time the patient was treated with bromides, atropine, etc., but without results. The tooth was then extracted, the fistula healed, and the fits ceased, and, at the time of reporting, the patient had remained free from them for four years."

The two following cases are reported† by Dr. Liebert:

Case XV.—Emil S., aged 25, in good health and no neurotic tendency, began to suffer with attacks of vertigo in February, 1883. These attacks lasted several minutes, after which the patient appeared perfectly well. On one occasion, however, the vertigo was so severe that he was compelled to sit down

* *Western Journal of Medicine*, 1869.

† *Proceedings Odontological Society of Great Britain*, 1880.

‡ *Proceedings Odontological Society of Great Britain*, 1882.

* *Journal British Dental Assoc.*, 1886.

† *Deutsche Medizin. Wochenschrift*, September, 1885.

to keep from falling. On one occasion he lost consciousness. By April 25, the attacks had greatly increased in severity. On this day he had had such a severe epileptic attack that Dr. Liebert was called in. The patient had been lying on the floor for fifteen minutes wholly unconscious and most of the muscles of the body in a state of tonic contraction; the pupils were of medium width and insensible to light; there was also a fresh wound of the tongue. After careful inquiry, it was learned that just previous to the attacks the patient experienced a peculiar tickling or crawling sensation in the tongue, an inability to speak words distinctly, and some involuntary movements of the tongue. Immediately after there followed the giddiness, the fall, unconsciousness, etc. Despite large doses of the bromides, the attacks increased in frequency and severity. Finally, in June, he began to suffer with toothache. Examination of the mouth revealed several carious teeth, one of which was very sensitive to percussion. This was extracted, and from that moment all peculiar sensations and motions of the tongue ceased, and there has not been in the past two years a single epileptic seizure. This patient had in the four months several hundred attacks of vertigo and eighteen or twenty typical epileptic convulsion.

Case XVI.—Young man, aged 35, cabinetmaker. Began having epileptic attack on February 3, 1862, which came on almost daily and with increasing severity. On March 5, he had twenty-three seizures. With the exception of toothache he had never been sick. Repeated inquiries elicited the information that from December, 1861, the use of his tongue was for some seconds, or even minutes, frequently rendered difficult, and this fact was coupled with a certain feeling of illness or vertigo. In the attack of February 3, 1862, these symptoms were exceptionally severe, the tongue being drawn to the right side and executing spasmodic movements. Immediately thereafter he became unconscious and fell to the floor in convulsions. The tongue symptoms were usually premonitory of the frequent subsequent attacks. Owing to the fact that the aura appeared to be connected with the mouth, it was determined to seek for the cause in that locality. As he had had toothache occasionally, several carious teeth were removed. The patient at once declared that he felt an unwonted freedom from a former oppressive feeling, and that he believed he would have no more of the seizures. His conjecture was correct, for he remained free from them from that time forth. This patient had epileptoid vertigo for three or four months and severe epileptic attacks for thirty-eight days.

CLINICAL NOTES.

BROMINE IN CROUP.—Prof. Howell has known of a number of instances in which a drop of bromine, with each dose of potassium, acted well in throwing off the membrane in croup.

DYSPEPSIA MIXTURE.—For chronic gastric catarrh, Prof. Gerhard highly recommends this *mistura dyspeptica*:

℞ Foliarum sennæ.....℥ ij
Pulv. rhei.....gr. xl
Ft. infusion with ℥iv water, and add
Vini ipecacuanhæ.....f ℥ ss
Ext. hydrastis Canadensis fld...f ℥ jss
Potassii carbonatis.....℥ j
Sig.—Take a dessertspoonful half hour before eating, in water as hot as can be borne.

PROGNOSIS IN CONVULSIONS.—Convulsions following burns in small children are apt to prove fatal. I have never known a case of scarlet fever to recover in which a convulsion has occurred after the appearance of the eruption.—*Prof. Atkinson.*

CYSTITIS.—Dr. Parish established an artificial vesico-vaginal fistula in a woman whose urethra had been dilated three times in the past year for cystitis, probably specific, with almost constant dribbling of the urine. He claims that the hollow button, inserted between the cut edges, causes aggravation of the cystitis, and he prefers stitching them with silk, allowing the sutures to remain for at least ten days.

FOR FLATULENCE DUE TO FERMENTATION.—In a case of windy dyspepsia, due to indigestion of starches, Prof. Waugh simply prescribed diastase, with excellent results.

HYOSCYAMINE FOR ASTHMA.—Dr. Musser recommends hyoscyamine, gr. $\frac{1}{120}$, every three hours, internally; or where a rapid effect is desired, gr. $\frac{1}{240}$ to $\frac{1}{120}$ hypodermically, for the spasmodic asthma of emphysema. He uses, in addition, nux vomica as a respiratory stimulant, and terebene or oil of eucalyptus for the accompanying bronchitis, diminishing the hyoscyamine as the other drugs are increased.

IN FRACTURE OF THE CLAVICLE, Dr. White claims that the four-tailed bandage fills all the indications, if the patient can be kept in the supine posture, with the head lowered. The elbow rests in a small hole cut in the centre of the bandage, two tails, 10 inches wide, encircle the chest, and the other two, 4 inches wide, are carried round the shoulder, opposite the fracture. No pads are used.

SOAPS.—Prof. Shoemaker says that soda soaps as a rule are more or less irritating than potash soaps. Great caution should be exercised in the selection of a toilet soap, for in order to be entirely harmless these should have a neutral reaction. He exhibited to the class a number of principal toilet soaps, which he had gotten at different places in the city, and which he had given to an expert to be tested. With two exceptions, all these soaps contained more or less free alkali. This free alkali, he said, was, especially in young children, the cause of many skin eruptions, such as simple erythema, seborrhœa, pustular eczema, and the like.

Prof. Shoemaker then enumerated the different medicated soaps and their particular values. Alum soap is good in hyperidioses, in pustular eczema, and in chafing. Boro-glyceride soap is useful in acne, seborrhœa, and for rough skin. Chamomile soap is mildly stimulating, excellent for bromidroses, intertrigo, and is the best soap for dandruff. Naphthal soap is the very best application for animal parasites on any part of the body, and also in bromidroses. Salicylic acid soap is a non-irritating antiseptic soap, and is good for toilet purposes. Corrosive sublimate soap is serviceable for removing freckles, chloasma, rough skin, for changing a muddy to a clear complexion, and in all kinds of itching.

IN the case of a child seventeen months old, very low with marasmus, accompanied by diarrhœa and vomiting, Prof. Waugh stopped its milk and substituted predigested food. The vomiting and diarrhœa he treated by sulphocarbolate of zinc, gr. $\frac{1}{4}$ every two hours. The child is improving rapidly.

STRICTURES.—Dr. McConnell believes that the only satisfactory treatment for strictures in the pendulous portion of the urethra is to cut them, and for the first three inches he prefers a bayonet-shaped tenotome. This he slips along the floor of the urethra to an inch beyond the stricture, and on drawing out the knife cuts the stricture about a line in depth, and the mucous membrane an inch before and behind it. He then enlarges the urethra by divulsion, puts the patient to bed for several days, keeps the urine alkaline (with sodii bicarbonas gr. x, and morphinæ sulphas gr. $\frac{1}{8}$), and afterwards passes bougies for some time.

IN CASES OF IRITIS, Prof. Keyser at once gives gr. $\frac{1}{12}$ bin-iodide of mercury, with gr. v iodide of potassium, three times a day; and applies hot stupes of hamamelis for the pain. If no benefit be noticed in three or four days, he drops the mercury and tries salicylic acid gr. xx ter die. If a condyloma is detected on the iris, he is sure of specific cause.

FOR "VAGUE PAINS."—Prof. Atkinson considers oil of gaultheria a most valuable remedy. He gives it till ringing in the ears and vomiting occur. For a girl of seven, weak, pale, anæmic, and troubled with "vague pains," he gives

℞ Olei gaultheriæ.....f℥ij
Mucilaginis acaciæ,
Syrupi simplicis.....āā f℥iss M.
Sig.—℥j every three hours.

In addition, he puts her on a tonic course of cod-liver oil, iron, gin, wine, and strychnia.

IN MELANCHOLIA, Dr. Pepper claims excellent results from hyoscine, with the ferruginous tonics, nutritious diet, and complete change of the patient's surroundings.

INCONTINENCE OF URINE.—To a boy of five years, with incontinence of urine, Prof. Atkinson gave

℞ Extracti ergotæ fluidi.....f℥j
Tinturæ nucis vomicæ.....gtt. xvj
Syrupi simplicis.....f℥iss
M. Sig.—Teaspoonful ter die.

The dose to be doubled in a day or two, if necessary.

SODIUM CHLORIDE AS A PROPHYLACTIC AGAINST GERMS.—Prof. Woodbury advises a plentiful use of common salt in one's food, for he thinks that it acts as a preventive to zymotic diseases, and that, when such diseases do come, they are much lighter in persons accustomed to using salt.

HAVE a thermometer in the sick-room, and see that the temperature is kept at from 70° to 75° Fahrenheit. Keep perfumes out of the sick-room; they soon have a stale odor and are offensive to the patient. Keep visitors out, also; they are still more so.—PROF. ATKINSON.

FOR TONSILLITIS AND PHARYNGITIS.—Prof. Woodbury says that glycerites of tannic and of gallic acid are valuable preparations for the physician to have in his office, to serve as applications by brush or in the form of a spray to sore throat, inflamed tonsils, and the like, and should have been included in the last revision of the Pharmacopœia.

MORPHINE HABIT.—Dr. Wilson showed a case of morphine habit at the Philadelphia Hospital, January 14, 1888, in which one drachm of morphine only lasted the patient four or five days. The drug was originally prescribed by a physician for the relief of pain in hip-joint disease. In treating these cases it is indispensible that the physician himself administer any morphine required, as few nurses can resist the pitiful appeals of a victim of this habit while under treatment. The treatment must be largely moral in such cases.

SHOULDER DISLOCATION.—After several vain attempts to reduce a sub-glenoid luxation by rotation, Dr. Janney succeeded by making traction directly away from the shoulder. He declared that when the head of the humerus is lodged beneath the glenoid process of the scalpula, rotation is often useless.

PENNSYLVANIA HOSPITAL.—Dr. T. G. Morton performed a laparotomy on a man, on December 29, 1887. The case was one of gunshot wound. The bullet was found and extracted. Four days after the operation the patient was doing well.

ERYSIPELAS TREATED WITH JABORANDI.—A poor woman was brought into the Medico-Chirurgical Hospital, about a week ago, with an enormous peri-typhlitic abscess, which had been neglected shamefully. It pointed in the groin and on the thigh. The whole surrounding region was erysipelatous, and the disease had also appeared on the face. Fluid extract of jaborandi was at once given by Prof. Waugh in doses of ♏ xx every four hours; and even before the abscess was opened the erysipelas was under control. Enormous quantities of fœtid pus were evacuated from the abscess which had burrowed down into the glutei. It is very doubtful if recovery will ensue; the woman is being supported with peptonoids, wine, iron and quinine.

TYPHOID FEVER.—The general method adopted at the Jefferson Hospital by Dr. Jas. C. Wilson in the treatment of typhoid or enteric fever is to give calomel (gr. viiss–x), and sodium bicarbonate (gr. x) at a single dose, at night, to be repeated once or twice, if the case is in its first week; if in the second week it is not repeated, and after the tenth day of the disease it is only administered if required by the state of the bowels. Diarrhœa, however, is not to be considered as a contra-indication to the mercurial. When the evacuations are excessive suppositories of opium (aq. extract gr. j) are used at night. Enemata of thin gruel may be occasionally resorted to for the relief of constipation. Cold sponging of the body is resorted to twice in the twenty-four hours as a routine measure; hyperpyrexia requires more frequent applications. Carbolic acid (gr. j) and tincture of iodine (gtt. ij) are given from the beginning, every two hours during the day; every three hours at night. Antipyrine (gr. x–xv) is given in a single dose when the temperature is over 104°. Alcohol is not necessarily a part of the treatment.

TRANSLATIONS.

MANAGEMENT OF IMMATURE AND DELICATE INFANTS. — Berthod, discussing the management of infants prematurely born, reaches the following conclusions:

Such infants are hypothermic, and obtain nutriment with great difficulty. The *couveuse* is the best agent against hypothermia. It is necessary to regulate the temperature so that the child's rectal temperature, taken while in the *couveuse* at least twice a day, should oscillate between 37.5° and 35° C. as the extreme limits. Gavage is his choice in feeding these children, the quantity of fluid given being suited to the stomachal capacity in each case. The food consists of the mother's milk, that of a wet-nurse, or of milk, the chemical constitution of which approaches as nearly as possible, naturally or artificially, to the mother's milk. His results are claimed to be highly satisfactory.— *Revue de Ther. Méd. Chir.*

PRECAUTIONS CONCERNING LAUNDERING IN HOSPITALS.—Tourneux (in *La Normandie Médicale*) calls attention to the new duties devolving on hospitals through the acceptance of the modern germ theory. He advises the following method of purifying bed linen and wash clothing: (1) Steeping in alkaline water at 50° C., with agitation for fifteen minutes in tubs used for this purpose alone. To the water is added sulphate of iron, in the proportion of three kilos to the cubic metre, before the water is drained off. (2) Heating with steam in a close receptacle, where the heat can be raised to at least 115° C. This exposure should last at least two hours.

LACTIC ACID FOR EAR DISEASE. — Aysaguer (in *Revue Mens. de Laryng.*, etc.) recommends lactic acid in aural suppurations. He applies it at first diluted to one-fifth, and rapidly increases until the pure acid is used. It destroys granulations, but has no bad effect upon healthy tissues.

ANTIPYRIN IN DIABETES.—Dr. Gœnner tried antipyrin for a gentleman sixty years of age, who had already used ordinary remedies (through which the amount of sugar, originally 6 per cent., was diminished to 2.98 per cent., and even less). The success was very marked; after ʒiiss had been taken, Trommer's test showed scarcely any reaction. The remedy was continued for a few days longer (45 grains per day), and in ten days after commencing treatment the sugar had entirely disappeared.— *Therapeut. Monatschrift.*

COCAINE IN WHOOPING COUGH.—Labbé praises the local application of cocaine in whooping cough, but finds that of iodine still more efficacious. He applies the latter agent diluted to one-tenth, or one-fifth, on cotton, to the glottis.— *Revue de Ther. Méd. Chir.*

A HIGHLY ESTEEMED CAUSTIC.—Felix, of Brussels, recommends the following paste:

Powdered starch	37 parts.
Wheat flour	112 "
Corrosive sublimate	1 "
Dry chloride of zinc	110 "
Iodol, pure	10 "
Croton-chloral	10 "
Bromide of camphor	10 "
Acid carbolic, cryst	10 "

Mix in a glass mortar the previously pulverized substances, add a little distilled water, drop by drop, until a homogeneous paste is formed. Do not handle with damp hands.

The pain of this application is said to be quite supportable; the eschar is hard and well limited, and detached easily; the action is markedly antiseptic, and powerfully hemostatic. It is easily managed; the application can be made with precision; the paste is not fusible or deliquescent, and can be handled without injury. — *Revue de Ther. Méd. Chir.*

IODOL IN TUBERCULOSIS AND OTHER DISEASES OF THE LARYNX AND UPPER AIR-PASSAGES.—In the *Münchner Medicinische Wochenschrift*, 1887, No. 38, Prior contributes the results of his experience with iodol in diseases of the nose and throat. He used it in the form of fine powder, blown into the air-passages once or twice daily. Although absolute recovery was secured in comparatively few cases of severe form (possibly the iodol being no more efficient in these than iodoform or lactic acid), still the fact that the application is not only painless, but is pain reducing, while efficient and free from all danger, constitutes it the best for the general practitioner.— *Centralblatt für Chirurgie.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEB. 1, 1888.

EDITORIAL.

INSTITUTES OF "CHRISTIAN SCIENCE!"

THE public press announces that the St. Louis Court of Appeals has refused to grant the application of some individuals with peculiar views upon the subject of disease and therapeutics; not that the possession of the views in question is illegal, but because the alleged Christian Scientists expect to engage, and indeed are now actually employed, in the practice of medicine wherever they can find patronage. We also learn from the same source that Judges Arnold and Wilson, sitting in the Court of Common Pleas, have given a charter to the "Philadelphia Institute of Christian Science." The charter was granted under the corporation act of 1874, which provides for the formation of corporations "not for profit."

A Christian Scientist, according to recent use, or misuse, of the term, is one who claims to cure disease without drugs by miraculous means. If our Judges believe that the new school of mind or faith-cure professors do not practise medicine and are actuated by pure philanthrophy, they are very much in need of information upon the subject. Perhaps the knowledge that the Registration Act of 1881 would render them amenable to the law, in case they engage openly in practising medicine, made the Court regard the appplication as harmless, or at least as not fraught with great danger.

We cannot, however, close our eyes to the fact that in the kindred case of homœopathy the Legislature has demanded evidences of medical preparation and fitness as pre-requisites to receiving the license to practise medicine. No such medical knowledge is contemplated in the philosophy of the Christian Scientist. He claims that the days of miracles have not yet passed; he relies solely upon supernatural agencies in treating the sick and makes a boast of his ignorance of medical lore and of his own incompetence! Is such an individual to be trusted to treat serious cases of disease: strangulated hernia, typhoid fever or membranous croup for example?

In a free country, like this, one of the dearest rights of the citizen is to have his own doctor and to change the method of practice at his pleasure. At the same time the law recognizes a responsibility on the part of the community and to some extent seeks to shield the sick man from the unfortunate consequences of his ignorance or prejudice, by refusing to grant the right to practise except under certain restrictions. The laws for the regulation of medical practice have primarily in view the object of protecting the community, and *not* the protection of the members of the medical profession; although it is true that anything which raises the standard of learning and ability among medical men is indirectly advantageous, because it gives (and rightly, too), the profession a higher position in the esteem of the community. This is very far from being a trade's-union.

The fad of so-called Christian Science, according to our views, will have a short existence. Modern medicine has a *raison d'être* which it demonstrates day by day to those who keep their eyes open and their judgment unclouded by prejudice. Some, however, will not be convinced that a glaring fallacy underlies this new development

of psycho-therapy until they learn in the school kept by Dame Experience, which, by the way, they are properly qualified to attend, since they will learn at no other. *Docet experientia stultos.*

F. W.

SHOULD THE MEDICAL STUDENT BE AN OUTLAW?

THE reputation of the medical student is notorious and traditional. Other people shun him; the boarding-houses don't want him, and, if he gets into one, the other boarders move out. He is popularly supposed to spend his days in dark and nefarious study and his nights in riotous living—

"Vexing with mirth the drowsy ear of night."

Granting that there is a little substratum of reason for this belief, it may be worth while to ask why it is so, and whether or not the medical student is necessarily an outlaw.

Most of these young men come from the country. To many it is their first experience of the city; perhaps their first prolonged absence from home. Cutting loose from home ties, they are thrown at once into the temptations of a city life. They have scant opportunity to make acquaintances, save with those whom they may meet in their boarding-houses.

This is of all others the time when church influences would be most valuable. Our city churches generally welcome strangers, but these youths are often too shy to enter, uninvited, these magnificent places of worship.

Man is gregarious, and naturally seeks for associates; but for society the student has few opportunities. The exclusivism which characterizes society, with the pride, which is mainly shyness, of the countryman, sets up an invincible barrier against a mutual acquaintance which might enlarge the ideas of the one and smooth the manners of the other.

But the doors of sin ever stand widely open. If there be little opportunity of forming desirable acquaintances, the other sort are quite accessible.

When the parents of these young men send them to the medical college, they believe that the faculty will take some personal interest in their pupils; that the latter are constantly under their supervision. The fond mother sends her son to Professor Blank with a letter from a former student, and she believes that their relations are much the same as those of the student and the preceptor with whom he has been studying. Did she but know that too often all interest ceases when the student has paid his fees, and the next time the consciousness of his existence occurs to the professor is when, some years later, the student presents himself for final examination, she might be even more apprehensive than she usually is.

It may be too much to ask the faculties to open their homes to their students; but they should certainly interest themselves in the welfare of those who are directly placed in their charge, as this is a responsibility which they cannot escape. Students who have religious ties at home can be encouraged to enter city churches, or to attend the social meetings at the hall of the Young Men's Christian Association. Some churches also have social meetings to which students could be welcomed if they were introduced.

Such measures, in our opinion, are preferable to holding religious exercises in a College, or delivering special "student's sermons," on stated occasions.

W. F. W.

THE ETIOLOGY OF INEBRIETY.

ONE of the most marked advances in pathology of the nervous system of recent years is the recognition of inebriety as a corporeal disorder, of which

the craving for intoxicants is only the most striking manifestation. The inebriate may or may not be a drunkard, but he is never an individual possessing *mens sana in corpore sano.* There is in such persons a disease of the higher nervous centres, characterized by very strong impulse to indulgence in, or craving for, strong drinks. Dr. Norman Kerr, President of the Society, in a recent lecture in the hall of the Medical Society of London, advocated this pathology of inebriety, and described a number of predisposing and exciting causes. Among the former he gave a prominent place to heredity (either alcholic or insane).

LETTERS FROM SPECIAL CORRESPONDENTS.

LONDON LETTER.

LORD GRIMTHORPE AND THE HOMŒOPATHISTS *vs.* THE QUEEN'S JUBILEE HOSPITAL; THE HENDON COW-DISEASE AND SCARLET FEVER; COW-POX IN ENGLAND; RICKETS; THE VISUAL AND AUDITORY CENTRES; THE TREATMENT OF CORYZA; NEW LABORATORIES; PROF. RAY LANKESTER AND THE VICE-CHANCELLOR OF THE UNIVERSITY OF OXFORD; GRAPHIC RECORD OF CARDIAC SOUNDS, ETC.

I HARDLY know whether I may assume that the fame of Lord Grimthorpe has penetrated so far as Philadelphia; once, as Edmund Beckett, he gained some fame and much wealth as a Parliamentary barrister; later, inheriting greater wealth, he became Sir Edmund Beckett-Denison, and attained notoriety as the "restorer" of St. Alban's Abbey. Quite lately, for some inscrutable reason, he was made a peer by the style of Baron Grimthorpe. But change of name has wrought no change of nature and the signature "Grimthorpe" stands very frequently in *The Times* under letters as vehement, wrong-headed, and truculent as ever appeared above the more familiar signature, "E. Beckett-Denison." For years his hobby has been the restoration of St. Alban's Abbey, one of the oldest, if not the oldest minster in England, built on the spot where St. Alban, the proto-martyr of England, died; Roman bricks, brought from the neighboring Verulamium, being largely used in its construction. Parts of this abbey, having fallen into ruins, have been "restored," that is to say re-built, by Sir E. Beckett-Denison without the assistance of an architect and the result is terrible. The west front is one of the saddest examples of "bride-cake Gothic" in either hemisphere. His ridiculous pretensions to architectural knowledge were of course exposed by competent architects and his feeble designs severely criticised; but he was not to be turned aside from his dire purpose; and, as he supplied most of the money, the ecclesiastical authorities did not offer any effectual resistance. Now he has turned his attention to the medical profession and has written some furious letters to *The Times* on the "Odium Medicum in Hospitals;" because a young laryngologist who had been appointed to the Queen's Jubilee Hospital, having been discovered to be a homœopathic practitioner, was suspended by the Committee. This is how the retired lawyer writes of the members of another learned profession:

"I have opposed and defeated a good deal of trade unionism in my time—of clockmakers, architects and even of ladies, who all tried to beat me by abdication or secession; and I have lived to see workmen's unions, against which I wrote ten years ago, confess their failure to do a great deal that they expected. I am not frightened of being washed away by black doses from a set of medical conspirators.

Yours obediently, GRIMTHORPE."

By "medical conspirators" we are to understand not merely the members of the staff of the Jubilee Hospital, but every member of the medical profession who is not a homœopath. Lord Grimthorpe appears to think that homœopathy means small doses, but it is also characteristic of his habit of mind that he cannot spell the name of his protégé correctly; it appears always as Milligan, whereas the gentleman's name is Millican! In a previous letter I have mentioned the circumstances

under which the homœopaths established themselves in the Infirmary for Consumption, in Margaret street, London, all the members of the medical staff resigning. "The Queen's Jubilee Hospital" was started nine or ten months ago. It is a complex of many special departments and has a local habitation somewhere in Kensington. London has been growing very fast in this direction, and there is, it must be admitted, a considerable area between St. George's Hospital at Hyde Park Corner and the West London Hospital at Hammersmith; still, Kensington is on the whole a rich district and many thought that the new "Jubilee Hospital" did not meet a very pressing need. However, a staff was got together, and Mr. Kenneth Millican was appointed surgeon to the Throat Department. The committee subsequently passed a resolution to the effect that no medical officer of the hospital should be a homœopathic practitioner, or connected with a hospital where homœopathy was the required or an optional mode of treatment, and thereupon suspended Mr. Millican on the ground that he was connected with the Margaret Street Infirmary. The suspended surgeon disputed the competency of the committee to act without appealing to the governor or subscribers and the Court of Queen's Bench accepted this view and has granted Dr. Millican an injunction against the committee, requiring it not to interfere with him in the discharge of his functions as surgeon to the hospital. The committee has appealed and Dr. Millican has undertaken not to enforce the injunction pending the appeal. If the appeal is rejected the medical staff have expressed their intention of resigning and the hospital may, not improbably, collapse, as it is not at all certain that the believers in homœopathy will care to support another hospital in London. This is what Lord Grimthorpe has called boycotting and odious trades-unionism; and it is his interposition which has given the incident most of any importance which it may possess. His letters to *The Times* are wrong-headed, illogical and very ignorant; but they are most amusing. He slashes about him in a most boisterous and entertaining fashion, and has a knack of picking up any slight flaw in an opponent's argument which is very irritating to the latter, but rather good sport to the public. So far his opponents have been no match for him, and the general public are enjoying a good laugh at the expense of "the doctors," who, though they have a good case, have as yet found no competent champion. All this, "though it may make the unskilful laugh, cannot but make the judicious grieve."

Another topic, which is exciting much interest just now, is the controversy between Dr. Klein and Professor Crookshank, as to the connection between scarlet fever and a certain cow disease, which has been, for convenience, generally termed the "Hendon Cow Disease." The announcement that Prof. Crookshank had a paper on the subject, drew together such an audience at the meeting of the Pathological Society as I do not remember to have seen for years. Prof. Crookshank stated broadly that the Hendon cow disease was not scarlet fever, but true Jennerian cow-pox. Dr. Klein in his reply hardly disputed Prof. Crookshank's discovery of cow-pox, but emphatically denied that the latter's cows, which he (Dr. Klein) had seen, were suffering from the same disease as the Hendon cows. Moreover, he declared with equal emphasis, that the micrococcus found by Prof. Crookshank and by him identified with Dr. Klein's *micrococcus scarlatinæ*, was a different organism. It is not easy to arrive at a decided opinion on the points in dispute. Professor Crookshank was, undoubtedly, a little hasty in bringing his discovery forward before he had an opportunity of performing a *post-mortem* examination, but I cannot think that Dr. George Buchanan was justified in calling his arguments "flimsy." I believe that as a matter of fact the cases of cow-pox observed by Professor Crookshank, on a Wiltshire dairy farm, were part of an epizootic started by a cow brought from the very same dairy farm near Derby, as were the cows which started the epizootic at Hendon. As to the differences which Dr. Klein describes between his micrococcus and Professor

Crookshank's, they are of a very minute kind; but, of course, however minute, if constant their specific value will have to be admitted. It ought to be stated that this is not merely a controversy between two scientific investigators; behind each is a government department; Dr. Klein is employed by the Local Government, which is the Board of Health for disease as it affects man; Professor Crookshank is employed by the Agricultural Department of the Privy Council, which is the Board of Health for disease as it affects domestic animals. There are people who think that it is not a good plan to have two Government Departments, one to suppress epidemics and another to suppress epizootics; perhaps some day the public will wake up to the fact that man is an animal whatever else he may be, and that infectious diseases do not respect the hard line of demarcation which we have drawn between ourselves and the rest of the animal world. The publication of Dr. Klein's researches caused a scare among the dairy farmers. They knew, or thought they knew, that this cow disease was very common among milch cows; and, not unnaturally, they feared that if it became well known and established that scarlet fever was liable to be communicated to human beings by the milk of cows suffering from this disease, the milk trade would be seriously affected. The Agricultural Department took the question up, and Professor Brown, who is the head of that department, enlisted the services of Professor Crookshank, of the Bacteriological Laboratory at King's College, London.

The re-discovery of cow-pox in England is an interesting and rather instructive event; the disease of the udders which Professor Crookshank says is cow-pox, according to the veterinary surgeon, is not only common at the present time in England, but has existed here for many years; it is true that cows are liable to many different kinds of vesicular eruption on the udder; there are the yellow-pock, the blue-pock, and the white-pock, to mention only those called pocks. This fact was well known to Jenner, who gave special directions for recognizing the true cow-pox; in a letter which he addressed late in life to (if I remember rightly) a medical paper published in America, he gives an almost pathetic account of his early disappointments due to his not having at first appreciated this fact. It is just possible that since vaccination has been made compulsory the milkers may be less susceptible to cow-pox, and that may account for the disease having been overlooked. When vaccination from the calf was commenced in this country we had to go first to the Hague and afterwards to the Laforêt case (near Bourdeaux).

It is, I believe, the general experience that rickets is becoming very much less frequent in London, and the cases which are seen are much less severe than those we were accustomed to see a few years ago. It is, of course, still a very common condition and severe cases are still seen, but it is a less important factor in the causation of ill health in children than used to be the case.

For this happy result some credit must be given to improved sanitary conditions; but some, also, to the steady propaganda which the children's hospital and the out-patients' departments of the general hospitals have carried on for many years. Compulsory education has perhaps done something by teaching the mothers of the infants of to-day and thus raising the general standard of intelligence; the majority of these can now at least read the printed directions for feeding the baby, which are distributed broadcast. W. Bland Sutton has shown that monkeys and lions confined at the zoological gardens in London suffer in large numbers from rickets in so severe a form that a very considerable mortality is directly produced by it; in the young monkeys the softening of the vertebral column led to such a sharp bend that the spinal cord was compressed and the animals died of paraplegia; in lion-cubs the mode of death was different and certainly very curious. The tentorium cerebelli in carnivora becomes ossified, but never normally exceeds the thickness of writing paper; when the skull is thickened by rickets, the bony tentorium shares in the general enlargement, impresses the vermiform appendix of

the cerebellum downwards, and so occludes the fourth ventricle and leads to fatal hydrocephalus. Sir James Paget said that he had never seen any evidence of rickets in the bones of lions shot by sportsmen in their native haunts and preserved in museums. Mr. Sutton said that the only lion's bones in the Hunterian collection which showed any trace of rickets had probably been obtained by Hunter from menageries in England. One of the first services which the comparatively new science of comparative pathology has been able to render, has been to demonstrate rickets as essentially a disease of civilization; that there is no constant or direct connection between it and syphilis in the parent, and that there must be other factors in its causation at least as important as the constituents of the food.

A paper by Dr. Sanger Brown and Professor E. A. Schafer, F.R.S., on the functions of the occipital and temporal lobes of the monkey's brain, was recently read at the Royal Society. These investigators found that removal of one occipital lobe produced hemiopia; and the removal of both lobes permanent blindness of both eyes; and that these effects were produced without involving the angular gyrus in the lesion. They also found that not only the superior temporal gyrus, but even the whole temporo-sphenoidal lobe can be removed without producing any appreciable permanent effect on hearing.

In the number of the PHILADELPHIA MEDICAL TIMES which has just reached me, I see a note stating that Prof. Woodbury recommends a purging with cascara, hot drinks, confinement to the house for a day or two, and quinine for several days after, as a good treatment for coryza. This impels me to give a method recommended to me a good many years ago by a well-known physician. It is, I know, very old-fashioned; but as I have tested it again and again, and never without some benefit, it may be worth giving. When the cold was coming on, my friend gave a dose of opium at bedtime. His prescription was generally:

℞ Liq. opii sed. (Battley)..mxviij–xii
Acidi citrici.....gr. xii
Aquæ.....ad f ʒ i M.

Fifteen grains of bicarbonate of potash were added and the mixture drank in effervescence; on the following morning a double seidlitz powder, or a dose of some other mild saline aperient, was ordered. The patient was allowed about his ordinary avocations by day, and at night a rather smaller dose of opium was given, followed by another saline draught on the second morning; the second dosing is not always necessary, and a third very rarely. For ladies, who can often stay indoors with less inconvenience than men, Dover's power, gr. x, at night, followed by a brisk saline purge in the morning is, perhaps, preferable.

When the Royal College of Physicians and the Royal College of Surgeons bought conjointly a piece of ground on the Thames embankment, the area thus placed at their disposal was larger than was necessary for the erection of an Examination Hall. Upon this extra space it is now proposed to erect laboratories and a theatre to seat about four hundred. The purposes for which the laboratories are to be devoted is not yet settled, but it is believed that some at least will be available for independent original research.

Professor Ray Lankester, the comparative anatomist, has been dismissed from his post as examiner in Natural Science to the University of Oxford, because he did not attend a *viva voce* examination. The vice-chancellor of the university took deep umbrage at this, and matters were not made smoother by Prof. Lankester. It is said that some of the arrangements for examinations at Oxford are obsolete, and this may well be the case; but Prof. Lankester is hardly likely to get them reformed by defying Dr. Jowett, who is all powerful at Oxford. The personal matter at issue has been submitted to the arbitrament of the law. A rule has been granted, and the university must show cause why Prof. Lankester should not be restored.

Dr. Byron Bramwell has described to the Royal Society of Edinburgh an apparatus devised, with the skillful assistance of Dr. R. Milne Murray, for recording by the graphic method the relations of cardiac sounds to cardiac movements. Dr. Bramwell started with

the idea that he might be able to obtain automatically, a graphic reproduction and registration of the cardiac sounds by means of the phonograph. In the present state of that instrument, however, it is incapable of giving such tracings; and, though Mr. Edison has promised to look into the problem, it is not likely to be speedily solved. As an alternative method, a rather elaborate apparatus was put together, in which an observer listening to the heart with a binaural stethoscope, recorded the precise moment when the murmur or cardiac sound was heard, by pressing on a Morse's key, which made an electric circuit in communication with a lever which marked on a revolving drum; a cardiographic tracing was taken on the same drum, upon which time-marker was marked seconds and fractions of seconds. The element of uncertainty in this combination is the so-called "physical loss;" that is to say, the interval of time which elapses between the murmur being heard and the button being pressed by the forefinger. With sounds at irregular intervals, this was found to be in Dr. Bramwell one-fifth second; but where the movement was rhythmical, there was no physical loss, that is to say, the observer's brain, his auditory and arm centers, took on a rhythmical action, and the pressure was made by the forefinger on the button, not in response to a fresh stimulus emanating from the auditory nerve, but at the moment when from previous experience of the rhythm the brain had learnt to expect a fresh auditory impression. Thus the signs of the auscultator, when listening to the second sound, exactly corresponded to the point in the cardiographic tracing, where the second sound is known to take place. It is intended, in the first instance, to use the apparatus for investigating the exact time-relations of the presystolic murmur.

Sir George Burrows, Bart., who died recently, was the rector of the profession in England. He took a good degree at Cambridge, and was afterward Fellow of Cain's College. He married a daughter of John Abernethy, whose colleague he became at St. Bartholomew's Hospital. He enjoyed for many years a large practice as a consulting physician, and obtained every post of honor to which a physician in London could aspire.

The Crown Prince is now in the enjoyment of better health, both locally and generally, than for more than a year past. Sir Morell Mackenzie is said now to regret his acquiescence in the unfavorable diagnosis published after the consultation with his German colleagues at San Remo, in November. He now entertains serious hopes that the whole trouble has been due to perichondritis or some other inflammatory condition.

DAWSON WILLIAMS.

January 2, 1888.

ABSTRACTS AND GLEANINGS.

OPERATIONS FOR THE RADICAL CURE OF HERNIA.—The papers upon this subject read at the last meeting of the British Medical Association are published in full in the journals of December 3d and 10th.

The following is an abstract of the principal contributions to the discussion:

William Thornley Stoker advocates the open method of operating. He objects to the practice of using silver sutures, which are allowed to remain permanently. The best and most enduring closure is due to the exudation and organization of lymph, assisted by the twisted sac acting as a plug.

Kendal Franks prefers the dissection method, claiming that by this means a perfect cure is obtained in the majority of cases; no truss being required subsequently. He operates even in young men and where the hernia is small. In older men, who have learned to keep their hernias in restraint and suffer little discomfort, he does not advise interference.

His operation is as follows: The incision is made above, but parallel to the inguinal canal. The rings are cleared with a blunt instrument, and the canal examined. If the sac and its contents have slipped back into the abdomen, the rings and canal are at once closed. In old cases, with thick and adherent sacs, he clears the sac, opens it, and passes his finger into the internal ring. He then passes the silver

wire through one pillar and one side of the sac, then the needle through the other pillar and the other side of the sac, threads it with the same wire and withdraws it. The fastening of this suture closes the ring and obliterates the sac. Two wires are used. Below the suture the sac is excised. If the cord be spread out on the sac, it is not dissected off. Here the sac is divided across, leaving sufficient to form a tunica vaginalis, which is turned down and sutured. The proximal portion is fixed in the canal.

In closing the upper part of the ring, he passes the silver wire straight through the aponeurosis of the external oblique, directly over the internal ring. The needle, armed with the wire, then picks up part of Poupart's ligament, and is made to appear through the canal, when the wire is caught and the needle withdrawn. The unarmed needle now passes through the external oblique aponeurosis as before, and at a point corresponding with the other side of the ring passes through this pillar, is brought out the canal, threaded with the wire and withdrawn. Before this suture is twisted, a second one is passed at the lower end of the ring in the same manner. The third suture closes the external ring. Mr. Franks claims for his advocacy of silver wire the positive force of experience. He has never known it to do harm. In closing the wound, he uses buried sutures, sewing the divided tissues together with catgut.

The skin wound is brought together with an oblique suture, with a slight pucker at the upper angle for drainage. A drainage-tube is seldom required, and the first dressing is not disturbed for ten days.

Arthur E. Barker does not attempt a radical cure unless there is some special reason for abandoning trusses. In inguinal hernia he uses hard, twisted silk, prepared by himself. The ligature is passed around the neck of the sac and tied firmly. The sac is then cut across below the ligature, but is not dissected out. The sac is pushed up, and the borders of the ring brought together with the two ends of the ligature-thread upon a Lister's needle. From four to seven other ligatures are applied, and tied from above downwards. Drainage is unnecessary, if the wound be completely dried up to the moment of closure, and then padded with antiseptic wool. The dressing is not touched for ten days. The patient should maintain recumbency for three weeks or a month.

C. B. Keetley reported fourteen operations by injection, done over eight months previously. Three had derived no benefit from the operation. Most of the patients discarded their trusses several months after the operation. Failures result from not using enough fluid, from not getting it into the canal, and from the fluid escaping from the canal. While the injection is by far the safest and easiest operation for the ordinary surgeon, for certainty of result he thinks it cannot compare with the operations upon the sac, which, however, are safe in the hands of but a few surgeons.

A. Rabagliati attributed his early failures to the fact that the sac was not removed, and in it the fatal peritonitis arose. His method of operating is much like the direct method of the elder Gross.

Walsham preferred Banks' operation, cleaning the sac well up to the peritoneum, and using kangaroo-tail tendon for ligating.

W. Mitchell Banks described his method thus: In inguinal hernia, the sac, after being cleanly dissected out, is opened, and all bowel is replaced, and adherent omentum tied and cut away. The sac is then well pulled down, ligatured as high up in the canal as possible, and removed. Finally, the pillars of the ring are brought together by two or three silver sutures, which are left in position.

In femoral hernia, the cleaning and removing of the sac constitute the whole operation, and no attempt is made to close the femoral aperture.

In ventral and in umbilical hernia, use is frequently made of a whole or a part of the sac as a plug to stop the aperture, which is generally large, and in which it is seldom possible to adopt any means of approximating the edges which seems likely to be permanent. He adheres to this plan on account of its simplicity, and because it should be done many times by the same operator

in order that a fair estimate may be made of its value and its defects. Where this operation has been added to that for the relief of strangulated hernia, he believes the danger of the latter operation is greatly lessened, unless the conditions are such as to preclude the possibility of so extended an operation. He attributes part of his later success to the removal of the sac. He thinks the annoyance attributable to trusses is exaggerated. In children operations are seldom required, a well-fitted truss curing the vast majority. He urges the operation in small femoral hernias with adherent omentum, and in inguinal hernias too large to be supported. If an efficient truss can be worn with comfort, he does not advise an operation. He strongly advises the use of a light support after the operation, as well as the avoidance of straining.

William Macewen's operation differs from the preceding in that the sac is not dissected off or retained in the canal; but is completely returned beyond the limits of the canal, formed into a pad and placed on the abdominal aspect of the circumference of the internal ring. This being done, he brings the walls of the canal together, with a double suture in the conjoined tendon, which is brought into close proximity with that portion of Poupart's ligament on the level with the lowest part of the internal opening, and above by the transversalis and intestinal oblique, at a point corresponding to the highest level of the internal ring, the aim being to carry the conjoint tendon outwards towards the fixed unyielding ligament of Poupart, and to unite with the transversalis and internal oblique muscles. In oblique inguinal hernia the rectus muscle ought never to be included in the suture, as that would tend to defeat the desired object.

He does not believe that metallic sutures should be allowed to remain permanently. On the whole, he prefers catgut which has been so prepared as to last two or three weeks. He also uses drainage-tubes of decalcified chicken-bone.

C. B. Ball gave the results of his experience in the endeavor to cure hernias by torsion of the sac. The latter is completely separated from the cord up to the internal ring, and the peritoneum loosened from its attachments for some distance from that opening. The sac being known to be empty, its neck is grasped with broad-catch forceps and twisted. Four or five revolutions are usually sufficient; but the twisting should be continued till it is quite tight. A stout catgut ligature is then applied as high up as possible, and the ends cut short.

Two sutures of silk are now passed through the skin one inch from the wound, the outer pillar, the twisted sac in front of the catgut suture, and, finally, through the inner pillar and skin upon the inside. As these sutures prevent the sac from untwisting, it may be cut off in front of them, and a catgut drain is brought out through a separate opening at the back of the scrotum, and the two sutures closed over lead plates. Dry dressings are employed, and the bandages painted with silicate of potash. The dressings are allowed to remain from ten to fourteen days.

MEDICAL JURISPRUDENCE SOCIETY OF PHILADELPHIA.—The officers elected on the 10th ult., for the ensuing year are: Chas. K. Mills, M.D., President; John H. Clark, Esq., First Vice-President; Henry Leffmann, M.D., Second Vice-President; F. X. Dercum, M.D., Secretary; P. S. Coggins, Esq., Treasurer; G. Milton Bradford, M.D., Recorder.

THE *Annals of Hygiene* is indebted for one of its most entertaining selections to the picturesque fancy of some newspaper reporter. The article is an account from the Press of a man employed in an oil barrel establishment of this city, who has contracted the unusually pernicious habit of drinking crude petroleum. The scientific value of this contribution is somewhat impaired by its utter lack of truth, but as an instance of reportorial romancing, and of the absurd gullibility of the official organ of our State Board of Health, it is not wholly devoid of interest.—*Pittsburgh Med. Review.*

[N.B. Better label your jokes, if you send them to Pittsburgh.]

REVIEWS AND BOOK NOTICES.

SIX HUNDRED MEDICAL DON'TS. By Ferd. C. Valentine, M.D. Publisher, G. W. Dillingham, N. Y. 1888. Pp. 144, 12mo.

This book is the antithesis of the usual text-book, representing in terse form the germs which might be expanded into many a wise and useful homily. We would like to put this book into the hands of every one of our patients. The directions for the prompt treatment of snake-bites and of drowning or otherwise asphyxiated persons are especially commendable.

The directions for managing frost-bites show a lamentable error, which, perhaps, arises from the fact that the author's experience was gathered in Honduras, instead of in Canada. He says: "Don't apply heat to frozen fingers, etc.; rub them with snow or pounded ice." He should have specified wet snow, as rubbing with dry snow can have no other effect than to increase the frozen area.

Here is some bed-rock common sense: "Don't fall in love without previously ascertaining whether the object of your affection has descended from people of perfect moral and physical character."

This is excellent. When the first symptoms are felt, ascertain from the young lady if her grandmothers were all they ought to be; if her father came out of his last wheat deal with a proper amount of other people's funds; take a peep at the lady's teeth, etc., etc. Then, if you survive, and the field is clear, make up your mind and fall gently in love. It's so frequently done in that way.

FUNCTIONAL NERVOUS DISEASES; THEIR CAUSES AND THEIR TREATMENT. By George T. Stevens, M.D., Ph. D. Published by D. Appleton & Co., New York, 1887. 8vo, 217 pages.

This memoir received the highest honor awarded in 1883 from the Royal Academy of Medicine of Belgium.

The proper title of this book should be, "The Influence of Abnormal Conditions of the Visual Apparatus upon Functional Nervous Affections," as this fully describes the scope of the work. Viewed from this point it is a work of great value, one which will be found useful even to one who is fully indoctrinated with the views of Anstie. Instead of repeating the work of this and other masters in neurology, Dr. Stevens wisely confines his work to the results of his own observations and researches. While the book is thus in no sense a compend, there are few practicing physicians who would not carry away from it a clearer idea than they previously possessed of the importance of, and the exact role played by ocular anomalies in, the causation of headache and the graver neuroses.

The work is illustrated by photogravures, while the text and paper are all that could be desired.

NATURAL LAW IN THE BUSINESS WORLD. By Henry Wood. Publishers, Lee & Shepard, Boston, 1888. Pp. 222, 12 mo, paper covers. Price, 30 cents.

This is a series of essays upon the relations of labor and capital, wealth and its distribution, and other subjects of vital interest to the whole community. The author writes in a plain and simple style and presents his case in a way which should win the commendation of thinking men. Were we quite sure that those for whose edification such books are intended ever do think, or thinking accurately and seeing the truth are able to place the duties of the citizen above the selfish instincts of the individual, we would believe that such books as these do a world of good. We hope they do.

OPERATIVE SURGERY ON THE CADAVER. By Jasper Jewett Garmany, A.M., M.D., F.R.C.S. D. Appleton & Co., N. Y. Pp. 150, 8vo.

A guide to the manipulative procedures of the ordinary surgical operations. It is well fitted to be a text-book for classes on operative surgery. Two colored diagrams are given, showing the collateral circulation after ligature of the arteries in the arm, the leg and the abdomen. These are so good that the reader regrets there are not more of them. In fact, the lack of illustrations is the most serious defect in the book. As a manual it is excellent.

ON THE DIAGNOSIS OF DISEASES OF THE BRAIN. By W. R. Gowers, M.D., F.R.S. Second edition, 1888. P. Blakiston, Son & Co., Phila. Pp. 254; price, $2.00.

This volume contains eighteen lectures delivered at University College Hospital. The text is illustrated with cuts and diagrams. The book is not one to be lightly read or skimmed over. The subject is too intricate, too complex, for any but such readers as are willing to expend time and thought upon it. Such readers will enjoy a subject thoroughly written up with the clearness which comes from an intimate knowledge of the topic discussed.

A DICTIONARY OF TERMS USED IN MEDICINE AND THE COLLATERAL SCIENCES. By the late Richard D. Hoblyn, M.A., Oxon. Eleventh edition. Revised by John A. P. Price, B.A., M.D., Oxon. George Bell & Sons, York St., Covent Garden, London, 1888. Pp. 806.

An excellent book for reference, copious, with good definitions, but few synonyms. It stands midway between the cyclopædic work of Dunglison and the small volumes for students' use.

A HISTORY OF THE MEDICAL CLASS OF '77 (U. P.) By J. M. Anders.

We are sorry we were not a member of '77, and cannot have Dr. Anders draw our pen-picture as charmingly as he does his comrades.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

EDITORS OF MEDICAL TIMES:—In your issue for Dec. 1, "G. B. S.," of Weston, W. Va., relates a case and asks for your opinion in regard to diagnosis and treatment.

In addition to the line of treatment, mentioned by one of the editors, I should like to suggest the use of galvanism—employing a current which will produce, in the patient, a pleasant sensation of warmth. The *positive* electrode being placed at the top of the spine, the *negative* at the seat of pain. The séances should be of short duration, lasting not longer than five minutes, if occurring every day, or ten minutes every other day.

MARY WILLITS, M.D.

1527 Green Street, Phila.

ABOUT THE SIZE OF A ——

Editors MEDICAL TIMES:

WILL you allow me, as an English physician who reads and values American medical periodical literature, to make a protest against the way in which we, on both sides of the herring-pond, give loose statements as to the size of pathological objects. Such time-honored comparisons as a "fœtal head" (I thought they varied a great deal) or "a millet seed" (I never saw a millet seed, but believe it to be about as big as a miliary tubercle), we cannot hope to get rid of before the millennium. But when it is a mere matter of length or breadth, could we not state the fact in inches, or millimeters? I am moved to write to you by having been just now brought up by the statement that something or other was "about the size of a dollar." I was interested in this case up to that point, but I got lost then; the only dollar I ever saw was a tiny gold coin, "about the size of a three-penny bit;" I beg pardon, about fifteen millimeters in diameter. From the context I think that the article mentioned must have been bigger than that, but I am not sure and the statement bewilders me and destroys my interest in the case. Another time I came across the statement that a tumor was "about the size of a doughnut." Now as to a doughnut my mind is blank; is it a nut that grows on a tree—a cocoanut, or a walnut, or a hazelnut? or is it the other half—"dough" suggests it is a kind of cake—a "bath bun," or a "tea cake," or perchance a cake "about the size of a piece of chalk?" as the witness said in the famous trial.

It is bad enough, Sirs. to have to learn two or three languages in order to keep

ahead of the progress of medical science. Why should we, who speak the same language, throw these entirely unnecessary obstacles in each other's way? I hope you will lend your powerful influence to induce our American cousins to give their measurements in terms of some scale which can be mutually understood.

A PUZZLED ENGLISHMAN.

London, December 28, 1887.

P.S.—Since writing the above a lady has told me that a "doughnut" is a kind of bun about the size of an orange, brown outside, jam inside, very good to eat, and "they cost three-halfpence." Upon this I wish to ask: (1) Tangerine or Seville orange? (2) Is she right? (3) Granting 1 and 2, is this a satisfactory way of arriving at a pathological fact?

PHYSICIANS SHOULD NEITHER BE PHARMACISTS NOR PHARMACISTS PHYSICIANS.

MESSRS. EDITORS:

Dr. C. L. Mitchell in an article to the MEDICAL TIMES of recent issue, in discussing the question, "Should Physician be Pharmacist," takes the affirmative position; and, in referring to many existing facts bearing upon the mutual relation of the professions, advises the physician to boldly enter the domain of pharmacy, by legitimate procedure, of course, and take his chance on the result. Your present correspondent would take a different view, and affirm his conviction that as the dismemberment of pharmacy from physic took place as long ago in the world's history as the eleventh century, and by the fifteenth era became a confirmed and distinct separation, it would be a long stride backward to now attempt to ally medicine to the practice of an art like pharmacy, which, as the dissemination of knowledge and the advancement of science have demonstrated, involves wholly separate offices and functions.

Passing without comment over the grievances, real or fancied, which the malcontents of each profession affect to feel at the so-called usurpation of rights and privileges, we do not believe that crimination and recrimination, jealousy and mistrust, suspicion and retaliation, will ever bring about harmonious relations, equalize things or inure to the material benefit of either, but just the reverse, as these are the feelings which engender antagonism. But that, so far as is possible, aggressive innovation should be discountenanced and discontinued through the influence of good counsel and the recognized representatives of both bodies.

Positive evils and unjust practices should be made subjects of earnest conference and, being approached with reasonable, and conciliatory desires, adjustment would be entirely feasible. To state the truth plainly, the troubles which vex and which rise from conflicting interests have their whole and sole origin in over-crowded ranks and the attendant struggle for success. Neither medicine, nor pharmacy are, as a rule, longer remunerative, even in the popular centres. Failure from this cause does not as yet appear to lessen the tenacity to keep to a chosen pursuit, and our educational institutions offer no proper bar to oppose the ingress and annual avalanche of new recruits. It is vain to cry Full! Full! and the question or solution *must* finally resolve itself in a "survival of the fittest." We have to deal with pressing necessities and actual need and, until we may reach that Utopian era when morals may be successfully appealed to to sustain reason, we need hardly expect change or relief from existing circumstances. The pharmacist in the assistant capacity is the most meagerly paid of public servants and we have reason to believe that a large proportion of young practitioners of medicine barely make a livelihood! The failure, then, or want of opportunity, lies not at the door of either profession, medicine or pharmacy, but where other causes operate, such as have briefly been referred to above. No man, matured in years and experience, and of reasonable success or eminence in either profession was ever known to advance a proposition that medicine should deliberately invade pharmacy, or that pharmacy should innovate upon medicine with a view to protecting and sustaining the necessary requirements of either! On the other hand, every busy and earnest practitioner and every properly occupied pharmacist realize that in their

respective departments, time and life are both of too brief duration to do more, or essay more, than an intelligent exercise of the duties which pertain to each pursuit.

Let the aggressive practitioner and the retaliatory pharmacist each pause and it may be found that both have been drifting into false and untenable positions in seeking for causes of failure and disappointment. Let each faithfully and conscientiously pursue his separate path of pursuit with mutual respect, and with due regard for the accorded rights of each; and in time warring and clashing of interests may cease and this too without sacrifice of professional prestige or loss of personal respect.

Very respectfully yours,
WILLIAM B. THOMPSON.

December 9th, 1887.

ANTIPYRINE IN SCIATICA.

Editors MEDICAL TIMES:

I have never been more thoroughly convinced of the curative power of a drug than I am of the power of antipyrine in controlling the "algias." I have used it for a time and almost invariably with the most gratifying results. The last case treated by me was such a forceful demonstration of its good effects that I will, in few words, relate it: I was called a week since to see a lady fifty-seven years of age, who was suffering the most excruciating pain I have ever witnessed in sciatica. I prescribed fifteen grains of antipyrine, which was repeated in two hours. In a short time the pain was entirely gone, and the patient slept twenty-four hours with but few brief interruptions. She has had no symptoms of sciatica since the antipyrine was taken. I am convinced that there is nothing that will go ahead of antipyrine as an anti-neuralgic remedy. It is claimed that antifebrine has a similar effect. My experience does not warrant the assertion. The cyanosis produced by antifebrine will prove a barrier to its usefulness. I believe the price of antipyrine is unnecessarily high, and hope the manufacturers will reduce it.

C. M. POOLE.

Salisbury, N. C.

MISCELLANY.

THE EPISCOPAL HOSPITAL. The thirty-sixth annual meeting of the contributors to the Hospital of the Protestant Episcopal Church in Philadelphia was held Jan. 3. Mr. Alexander Brown presided and Rev. John A. Childs, D. D., acted as Secretary.

The annual report of the Board of Managers called attention to the many improvements made during the year and the increase in the work of the hospital, which was greater last year than during any preceding year in the history of the institution. Notwithstanding the economy practiced, it stated that the expenditures exceeded the contributions by $10,200, which was partly defrayed from the ordinary legacies received during the year, amounting to $3450, leaving a deficit of $6750, which has been drawn from the permanent fund.

The daily average number of free patients has been 165, and of paying patients 5. During the year two gifts of $5000 each for the endowment fund of free beds were received from Mrs. Rebecca Gibson and Mrs. Caroline Taitt.

The report dwells upon the loss by death of three of its most earnest and devoted friends, which the hospital has sustained during the year—Bishop Stevens, who had been President of the institution since 1865; Rev. Richard Newton, D. D., late Rector of the Church of the Covenant, and Mr. Charles Spencer. They were all members of the Board and a fourth vacancy in the board was caused by the resignation of Rev. C. George Currie, D. D., prior to his leaving the country. In place of these the Board elected Rev. Joseph D. Newlin, D. D., Rev. William N. McVickar, D. D., Rev. J. Blake Falkner, D. D., and Mr. Charles D. Clark.

Mr. W. W. Frazier, the Treasurer, reported that the receipts for the year amounted to $97,368.80, of which $13,018.10 were contributions from churches and $5356.25 from individuals and firms.

The Superintendent reported that 150 patients were in the hospital at the date of the last report. During the year

1809 patients were admitted, making a total of 1968 patients who were treated at the institution last year. Of this number 1793 were discharged, 1242 cured, 340 improved and 95 unimproved, and 159 died, 29 being deaths from railroad and machine shop accidents, which resulted fatally within 24 hours after admission, leaving 175 patients under treatment. Of these 103 are surgical cases and 72 medical; 107 are men, 41 women and 27 children.

The dispensary patients during 1887 numbered 20,031, of which 11,677 were surgical, 6,762 medical and 1,592 eye and ear cases. They were furnished with 59,329 prescriptions gratuitously, at a cost to the Hospital of $2,728.25.

The reports were received and ordered to be published, and the following members of the Board, whose terms had expired, were re-elected: Rev. B. Watson, D. D.; Rev. Thomas F. Davies, D. D.; Messrs. B. G. Godfrey, John C. Brown, Charles C. Harrison, Oliver Landreth, and Israel W. Morris.—*Ledger.*

TRUSEVICH finds that headaches depending on a vaso-constrictor neurosis are immediately curable by nitroglycerine.—*The Lancet.*

OFFICIAL LIST

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM DECEMBER 18, 1887, TO DECEMBER 31, 1887.

COLONEL J. H. BAXTER, CHIEF MEDICAL PURVEYOR.—Ordered to inspect the Medical Purveying Depot at St. Louis, Mo. S. O. 296, A. G. O., December 23, 1887.

CAPT. VICTOR BIART, ASSISTANT-SURGEON.—Relieved from further duty in Dept. Dakota. S. O. 293, A. G. O., December 17, 1887.

FIRST LIEUTENANT WM. B. BANISTER, ASSISTANT-SURGEON.—Ordered to proceed to Fort Lowell, Ariz., and report to commanding officer for duty; upon the arrival of P. J. A. Cleary, at Fort Wingate, N. M. S. O. 135, Dept. Ariz., December 20, 1887.

FIRST LIEUTENANT EUGENE S. SWIFT, ASSISTANT SURGEON.—Ordered for duty at Fort Spokam, Wash. Ter. S. O. 293, A. G. O., December 17, 1887.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 1, 1888, TO JANUARY 14, 1888.

MAJOR P. J. A. CLEARY, SURGEON.—Granted leave of absence for one month. S. O. 138, Dept. Ariz., December 25, 1887.

CAPT. LOUIS S. TESSON, ASSISTANT-SURGEON.—Relieved from duty at headquarters Div. of the Missouri, and as Examiner of Recruits at Chicago, Ill., and ordered for duty as Post Surgeon at Watervliet Arsenal, N. Y., retiring Capt. Henry G. Burton, Assistant-Surgeon. S. O. 5, A. G. O., January 7, 1888.

CAPT. RICHARDS BARNETT, ASSISTANT-SURGEON.—Ordered from further duty in Div. of the Atlantic, to duty at Fort Riley, Kan.; to take effect at the expiration of his present sick leave. S. O. 5, A. G. O., January, 7, 1888.

CAPT. R. G. EBERT, ASSISTANT-SURGEON.—Ordered from Fort Custer, Mont., to Fort Pembina, D. T. S. O. 301, A. G. O., December 30, 1887.

CAPT. A. H. APPEL, ASSISTANT-SURGEON.—Granted leave of absence for twenty days. S. O. 1, Dept. Missouri, January 3, 1888.

FIRST LIEUTENANT C. B. EWING, ASSISTANT-SURGEON.—Granted one month's leave. S. O. 137, Dept. Missouri, December 27, 1887.

FIRST LIEUTENANT WM. B. BANISTER, ASSISTANT-SURGEON.—Ordered from Fort Lowell, Ariz., to Fort Wingate, N. M. S. O 3, A. G. O., January 5, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 14, 1888.

GEORGE PURVIANCE, SURGEON.—To proceed to Detroit, Mich., as inspector of unserviceable property, January 11, 1888.

H. W. AUSTIN, SURGEON.—When relieved to proceed to Chicago, Ill., and assume charge of the Service, January 12, 1888.

J. M. GASSAWAY, SURGEON.—Leave of absence extended fifteen days, January 10, 1888.

C. B. GOLDSBOROUGH, SURGEON.—When relieved to proceed to New Orleans, La., and assume charge of the Service, January 12, 1888.

FAIRFAX IRWIN, SURGEON.—To proceed to Boston, Mass., and assume charge of the Service, January 12, 1888.

H. R. CARTER, PASSED ASSISTANT-SURGEON.—When relieved to proceed to Ship Island Quarantine, Miss., and assume temporary charge of the Service, January 12, 1888.

P. M. CARRINGTON, ASSISTANT-SURGEON.—Granted leave of absence for thirty days, January 10, 1888.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED JANUARY 21, 1888.

C. B. GOLDSBOROUGH, SURGEON.—To proceed with insane seaman from Chicago to Government Hospital for the Insane, January 16, 1888.

F. C. HEATH, ASSISTANT-SURGEON.—To proceed to Buffalo, N. Y., for temporary duty, January 21, 1888.

OMITTED FROM PREVIOUS LISTS:

G. W. STONER, SURGEON.—To proceed to Wilmington, N. C., Georgetown and Charleston, S. C., Savannah and Brunswick, Ga., Fernandina, Jacksonville, and Pensacola, Fla., as Inspector, December 30, 1887.